

Rural District of Chester-le-Street

NINETEENTH
ANNUAL REPORT

OF THE
MEDICAL OFFICER OF HEALTH

ON THE
Health and Sanitary Condition
OF THE DISTRICT

FOR THE YEAR 1913.

DURHAM:
THOMAS CALDCLEUGH & SON, 45, SADDLER STREET.



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CHESTER-LE-STREET.

TO THE CHAIRMAN AND MEMBERS OF THE RURAL DISTRICT
COUNCIL.

GENTLEMEN,

I herewith submit for your consideration my Annual Report on the Health and Sanitary condition of your district during the year 1913.

I have to thank your Council for your courtesy, and for the assistance I have received from you throughout the year.

I am, Gentlemen,

Your obedient Servant,

JOHN TAYLOR.

18th April, 1914.

INTRODUCTORY.

The area of your district remains unchanged.

PHYSICAL ASPECTS OF THE DISTRICT.

The district is undulating and broken up into numerous valleys, the greater number of which converge to the principal valley, called the Team Valley, which runs roughly North and South. The Washington District on the other hand slopes towards the Wear, and forms there the Western side of the Wear Valley.

The elevation ranges from a few feet to about 600 feet above sea level.

The subsoil is alternately gravel, loam, and clay, overlying the coal measures.

The rainfall is moderate, probably 25 inches per annum.

OCCUPATION OF THE INHABITANTS.

Coal Mining is the staple industry in the district, besides which there are Agriculture, Engineering to a slight extent, and Brickmaking.

NEW ENACTMENTS DURING THE YEAR.

The year under review has not been prolific in new enactments, and orders issued by the Board so far as rural districts are concerned have been conspicuous by their paucity. The most important Order issued by the Board which came into operation on the 1st February of this year, was the Public Health (Tuberculosis) Order of the 20th December, 1912. This Order provides for the compulsory notification of all forms of Tubercle.

POPULATION.

The population of your district shows again a decided increase, especially in the parishes of Birtley (199), Lamesley (216), Little Lumley (189), Urpeth (142), and Witton Gilbert (188).

There are decreases in Pelton, Usworth, Harraton, Burnmoor and Barmston. The decrease in all cases is due to the closing of houses unfit for human habitation, and the failure to build houses for the people thus displaced. Some of the alteration of figures, both in the increase and in the decrease, is due to another and, I hope, more accurate method of calculating the population of the different townships than that adopted in previous years.

The number of births in excess of deaths are 1,207, as compared with 1,336 last year, and with 1,145 during the previous year. This equals an increase of 1·83 per cent during the year.

The population of your district estimated by the method adopted this year is 66,648, or an increase of 1·01 per cent. during the year.

MARRIAGES.

The number of marriages registered during the year has been 555, as compared with 546 last year, and with 480 during the previous year. This gives a marriage rate of 16·6 per 1,000, as compared with a marriage rate of 16·5 per 1,000 last year.

The marriage rate for England and Wales for the year ended the 30th September, 1913, is 15·5 per 1,000, as compared with 15·5 per 1,000 last year.

Marriage rate from 1896 to 1913 inclusive :—

YEAR.	NUMBER.	RATE PER 1,000.
1896	461	16·2
1897	469	16·4
1898	490	16·6
1899	444	15·2
1900	458	15·1
1901	492	16·1
1902	515	16·4
1903	470	14·5
1904	545	16·3
1905	487	14·1
1906	552	15·5
1907	556	15·2
1908	555	14·8
1909	483	15·3
1910	534	16·7
1911	480	15·2
1912	546	16·5
1913	555	16·6

BIRTHS.

The number of births (corrected for the district) registered during the year has been 2,164, as compared with 2,221 registered last year, and with 2,189 during the previous year. There is a decrease as compared with each of the two former years; even though the population of your district is more than 2,700 above that of 1911, a steady decline in the child producing inclinations of the people is manifested.

The birth-rate this year is 32.54 per 1,000, as compared with 33.71 per 1,000 last year, and with 34.26 per 1,000 during the previous year. The loss to the population during this year as compared with the year 1912 amounts to no less a number than 77. Now this number of 77 may appear a drop in the bucket of nearly 67,000 persons, but as this decline is going on year by year, the loss is much more serious than it appears at the first glimpse. Let us go back to the first half of the decade ending in 1900, when the birth-rate was round about 40.0 per 1,000, and the district's loss this year is represented not by 77, but by 528. This continual decline in the number of live children produced in your district will, if it proceeds, become during a generation a very serious menace to the prosperity of the district, of the County, and of the Country as a whole.

The further study of Eugenics may elucidate a cause for this declination, but in the meantime I do not think that one need to enter into that abstruse subject to find a cause for the smaller crop of live children produced during the present year than that produced say 10 or 15 years ago.

It is a well-known fact, and I do not see any reason why the subject should be blinked, that there is a widespread and increasing system used to prevent conception and to destroy the young life during its early weeks of intra-uterine existence.

It is well known that diachylon, a preparation of lead, is extensively used for the purpose of abortion. A means could easily be got to stop this suicidal proceeding. Lead in any form should be a scheduled drug. If absolute proof could be procured, as I am sure that such proof could be adduced, that diachylon or other forms of lead, were being bought without a legitimate use for such a substance being shown to the seller, it should be declared that buyer and seller have committed a penal offence, and the sale of the drug would be at least reduced to a minimum.

Not only does the use of diachylon cause the death of the newly-conceived infant, but it injures irretrievably the health of the mother.

I do not mean it to be understood that I consider the use of diachylon the only cause at work reducing the number of live children born, for there are many others, such as I fully entered into my last year's and other annual reports, but the use of diachylon, though prevalent for years, is on the increase, and in some districts of this and adjoining counties, I am afraid its use is as common as is the appearance of the full moon.

The birth-rate for the Administrative County is 30·6 per 1,000, as compared with 31·1 per 1,000 last year, and that for England and Wales is 23·9 per 1,000, as compared with 23·8 per 1,000 last year.

Comparing the rates of birth in your different townships wherein there is a population of 2,000 and upwards, Lumley Great is the highest (40·23), then come Pelton (39·89), Edmondsley (35·62), and Washington (34·73). The lowest rates are in Lumley Little (22·42), Lamesley (26·33), Urpeth (29·65), and Harraton (30·00).

During the year there were registered the births of 88 illegitimate children, as compared with 75 such births last year. This gives 4·06 per cent. of all births, as compared with 3·37 per cent. last year, and with 3·15 per cent. during the previous year.

First Quarter,	499	births	..	Rate,	29·94	per 1,000
Second	„	594	„	..	„	35·65
Third	„	566	„	..	„	33·96
Fourth	„	511	„	..	„	30·66

DEATHS.

During the year 880 deaths have been registered in your district, as compared with 822 last year, and with 994 during the previous year. There is a slight increase as compared with last year, but considerably fewer than were registered during 1911. The number just quoted does not give the true number of persons dying during the year whose domicile was in your district, because a certain number of invalids, residents of your district, had been removed for treatment outside your district, and died there, whilst some individuals not residents of your district died within your district. Adding the former (77) and subtracting the latter (12), one arrives at the exact number of your residents whose deaths are allocated to your district, viz., 948.

The general death-rate (uncorrected for sex and age) of your district is therefore 14·17 per 1,000, as compared with 13·43 per 1,000 last year, and with 16·34 per 1,000 for the previous year. The actual death-rate after corrections for sex and age is 14·67 per 1,000.

The general death-rate, whilst higher than last year, must, if compared with the rates during the past 27 years, be considered satisfactory, and excepting last year, is the lowest during the past quarter of a century. As I have frequently pointed out in my previous reports, that it is the Infant deaths

which vary to any degree, the general death rate, and that Diarrhœa is the particular variant in Infant Deaths, so this year Diarrhœa is responsible for a large part of the increased general death-rate. If there had been the same number of deaths from Diarrhœa this year as there were last year, your general death rate would have been 14·11 per 1,000, instead of 14·67, as compared with 13·43 per 1,000 last year.

The table on page 13 gives the general and other death rates since 1887.

The general death rate of the Administrative County is 15·1 per 1,000, as compared with 13·6 per 1,000 last year, whilst that for England and Wales, less the 241 towns (great and smaller) is 12·1 per 1,000, the same as that of the past year.

Whilst your district compares quite favourably with the county generally, the comparison is quite unfavourable with that portion of England and Wales outside the 241 towns just mentioned. Even if compared with the 145 smaller towns your death rate is considerably higher, viz., 14·17 per 1,000, as compared with 13·0 per 1,000 of the former.

Your death rate should be equal to, if not lower than, similar districts in England and Wales, such as the areas included in the 145 smaller towns.

One looks forward with great hope of this being accomplished, for undoubtedly great sanitary improvements are taking place, and the general death rate is steadily falling, decade by decade, and if one compares the average death rate of the first three years of the present quinquennium with the last quinquennium one finds that the rate has fallen from 16·13 per 1,000 to 14·81 per 1,000, or 1·32 per 1,000, which means the saving of 88 lives per year.

INFANT DEATHS.

By the term Infant Deaths is meant the number of deaths of children under one year old.

During the year the deaths of 296 children under that age were registered, as compared with 268 last year, and with 413 during the previous year. The death rate of infants is computed as so many per 1,000 births, and not, as in the other rates, as so many per 1,000 living.

The Infant death rate this year is 136·4 per 1,000 born, as compared with 120·6 per 1,000 born last year, and with 188·6 per 1,000 during the previous year. The Infant Death Rate of the Administrative County is 137·0 per 1,000, as compared

with 106·0 per 1,000 last year, whilst that for England and Wales is 109·0 per 1,000 born, as compared with 95·0 per 1,000 during last year.

Formerly I have said that your district should be compared with the 145 smaller towns rather than with rural England. If this be done, then your infant birth rate is 136 to 112, which is much against the sanitary condition of the Rural District. Had the Rural District been able to show as clean a bill of hygiene as that of the smaller towns, a saving of 50 lives of infants would have been accomplished.

Again, one asks why should there be this difference in the robustness of children born in different places? Are the parents in one part of the United Kingdom more healthy than those in another? To any appreciable extent there cannot be that difference between the parents of your district and those of the 145 smaller towns with which I have just made the comparison. All the occupations of your District are healthy; your houses are not huddled together in confined spaces like some of those you will find in the towns I have quoted. If there be no cause in the parental stock, not likely will it be in the produce of that stock, and one is driven to look for the cause elsewhere.

Endeavouring to extract some cause of this difference from the figures of mortality now before me, one is struck by the difference in death from Diarrhœal diseases in the places I have used for comparison. In your district 59 infants under 2 years old have died from Diarrhœa, but if those infants had been born in the other area I have used only 54 would have succumbed.

So soon as a more cleanly surrounding is given to the immediate vicinity of the houses your people live in, a fall in filth diseases must take place. This is the universal experience of all communities who have faced this problem of infant life-saving. There is no exception to that universal rule, and every place which has introduced clean surroundings by abolishing privies and dry closets of all descriptions has been able to show better health of their peoples, and a marked, very marked, decrease of the two chief filth diseases, viz., Diarrhœa and Enteric Fever.

I have already mentioned that there are other and more insidious agencies, because they are more hidden, are individual not communal, at work to blast the lives of many of our infants. These agencies reduce the birth rate rather than increase the infant death rate, yet there are many infants' deaths attributal to those agencies at work.

There are no fewer than 147 children who have died under one year old whose deaths have been caused by premature birth and debilitating diseases. These 147 represent over 15 per cent. of all those who died during the year; 147 children who never had much chance to survive the struggles of the earliest months of life, and whose vitality was not equal to the strain put on them by the conditions of their surroundings.

How many of these conditions were avoidable my information does not permit me to definitely state, but, undoubtedly, there were many of those children who, had all the clauses of the Ten Commandments been carefully kept, would have survived their first year of life.

Many no doubt died from some remote condition of tubercle in an ancestor, but how many died from syphilitic conditions is more difficult to trace. On the medical certificates before me they are certainly a negligible quantity, yet somehow or other, one knows that there are many more infants syphilitic than are so described from the house tops. The ramifications of this hidden and secretive disease are in many instances difficult to trace, and as difficult to be perfectly demonstrated.

The Commission now sitting may be able to evolve some procedure by which, if the contraction of the disease cannot be materially reduced in frequency, the disease when once present may be more efficiently treated, and by that means lessened in prevalence. Whatever means may be adopted, the prohibition, by a heavy penalty, of its treatment by ignorant and unscrupulous persons should be provided for.

A great number of the victims of this fell disease, for it is equally if not more fatal than Phthisis, submit themselves to the most ignorant for treatment, thinking that by consulting an unknown person, their state will be concealed from the public. Vain expectation. Truly it is concealed, but at what a price to him or her who conceals it. Early death to themselves and earlier death to their progeny.

It is a preventable disease, and some day local authorities will of a necessity have to interest themselves in its prevention.

Prevention will be a most difficult problem to work out, and in the meantime one must wait for a completion of the labours of the Commission now engaged in investigating the problem, the difficult problem of alleviating the sufferings of humanity from syphilis in the many guises it assumes, from the wasting disease in the infant to the sudden death in the apparently vigorous adult in the prime of life.

First Quarter, Deaths	..	271	Rate, 16.26	per 1,000
Second	„	245	„ 14.70	„ „
Third	„	208	„ 12.48	„ „
Fourth	„	233	„ 13.89	„ „

The general death rate for each township will be found in Table XI.

In townships having a population of 2,000 and upwards the highest rates are in Edmondsley (16.71), Pelton (16.61), Witton Gilbert (16.56), and Urpeth (16.53), and the lowest rates are in Harraton (9.89), Lumley Little (10.23), Usworth (12.56) and Lamesley (12.94).

In the five years 1909–1913 amongst the four highest death-rated townships Pelton appears five times, Witton Gilbert three times, Urpeth three times, Usworth, Edmondsley and Lumley Great twice each.

In the same period amongst the four lowest death-rated townships Lamesley appears five times, and Edmondsley and Harraton each three times.

The Infant Death Rate in townships having a population of 2,000 and upwards is highest in Edmondsley (172.8), Witton Gilbert (164.5), Urpeth (163.4), and Lumley Great (155.5); and is lowest in Lumley Little (108.7), Lamesley (113), Harraton (120) and Usworth (124).

First Quarter, Deaths	..	81	Rate, 162.3	per 1,000 born.
Second	„	64	„ 107.5	„ „
Third	„	75	„ 132.5	„ „
Fourth	„	76	„ 148.7	„ „

Deaths from the seven chief zymotic diseases, viz., Smallpox, Scarlet Fever, Diphtheria, Measles, Fever (Enteric or Typhoid, and Typhus), Whooping Cough, and Diarrhœa, number 138, as compared with 93 last year, and with 224 during the previous year. The increase is due to a greater number of deaths from Diarrhœa (39), Measles (15), and Diphtheria (7). There is, however, a decrease of 18 deaths from Whooping Cough.

The zymotic death rate is 2.07 per 1,000, as compared with 1.41 per 1,000 last year, and with 3.50 per 1,000 during the previous year.

The zymotic death rate of the Administrative County is 1.85 per 1,000, as compared with 1.38 per 1,000 last year, whilst that for England and Wales is 1.07 per 1,000, as compared with 0.98 per 1,000 last year.

Excluding Diarrhœa, the zymotic death rate for your district, is 1·07 per 1,000, whilst that for England and Wales (for the same diseases) is 0·64 per 1,000. Calculating the Diarrhœal death rate of children under 2 years old as so much per 1,000 births, as is adopted by the Registrar General, your Diarrhœal death rate is 27·17 per 1,000 born, as compared with 23·41 per 1,000 born for England and Wales.

In townships with a population of 2,000 and upwards, the highest zymotic death rates are in Edmondsley (4·84, Scarlet Fever and Measles), Lumley Great (2·68, Diarrhœa), Pelton (2·66, Scarlet Fever and Measles), and Birtley (2·56, Measles and Whooping Cough), whilst the lowest zymotic death rates are in Usworth (0·74), Lamesley (1·19), Lumley Little (1·46), and Washington (1·47).

The following table gives the number of deaths from the seven chief zymotic diseases during the past three years.

DISEASE.	1911.	1912.	1913.
Smallpox	0 ..	0 ..	0
Scarlet Fever	5 ..	2 ..	4
Measles	35 ..	26 ..	41
Whooping Cough	34 ..	29 ..	11
Diphtheria.....	6 ..	5 ..	12
Fever (Enteric or Typhoid) ...	10 ..	4 ..	4
Diarrhœa	134 ..	27 ..	66

The number of deaths from Diarrhœa is considerably greater than last year, but only one-half of those occurring during 1911. Of the 66 deaths from Diarrhœa 48 or 72·7 per cent. were of children under one year old.

Regarding Diarrhœa in townships having a population of 2,000 and upwards, the highest rates were in Lumley Great (2·23), Lumley Little (1·46), Uppeth (1·42), and Edmondsley (1·31), whilst the lowest rates are in Birtley (0·46), Witton Gilbert (0·53), Washington (0·61), and Usworth (0·62).

BIRTHS AND DEATHS OF ILLEGITIMATE CHILDREN.

During the year the births of 88 illegitimate children have been registered, as compared with 82 last year. This gives an illegitimate birth rate of 1·32 per 1,000, as compared with 1·24 per 1,000 last year.

The number of deaths of illegitimate children under one year old are 20, as compared with 21 last year. The infant illegitimate death rate equals 227·2 per 1,000 born, as compared with an infant death rate of 132·5 per 1,000 born in wedlock.

This is easily accounted for in the want of the same maternal care and solicitude for the infant, both in its prenatal state and its postnatal conditions.

The birth rate, general death rate, zymotic death rate, and infant death rate since 1887 are tabulated on pages 13 and 14, and these tables are interesting to the student of municipal affairs, municipal improvement or retrogression.

It will be seen that the death rate this year is higher than that of last year, and this difference is to an extent due to the larger number of infant deaths (28) this year than last year. This increase of infant death is entirely due to an increase of deaths due to Diarrhœa in infants (32). If therefore one could control Diarrhœa, one could be sure of never having an appreciable rise in the infant death rate.

As I have already said, one hopes that the more enlightened views now expressed by your Council, as their results become more and more extended, will bear such fruits, can I say "rare and refreshing," as will amply repay every section of the community for the extra costs such improvements entail, both on the property-owner and ratepayer.

YEAR.	BIRTH RATE.	QUIN- QUENNIAL AVERAGE.	YEAR.	GENERAL DEATH RATE.	QUIN- QUENNIAL AVERAGE.
1887 ..	39.00	36.77	1887 ..	18.87	18.76
1888 ..	37.70		1888 ..	18.16	
1889 ..	34.60		1889 ..	18.50	
1890 ..	35.80		1890 ..	19.50	
1891 ..	39.50	39.96	1891 ..	19.90	19.20
1892 ..	39.70		1892 ..	19.10	
1893 ..	40.40		1893 ..	20.80	
1894 ..	39.50		1894 ..	20.10	
1895 ..	40.70	38.39	1895 ..	19.70	18.51
1896 ..	38.09		1896 ..	19.00	
1897 ..	37.80		1897 ..	16.50	
1898 ..	38.78		1898 ..	18.35	
1899 ..	38.31	38.53	1899 ..	18.44	18.31
1900 ..	38.96		1900 ..	20.26	
1901 ..	39.12		1901 ..	19.26	
1902 ..	38.58		1902 ..	17.29	
1903 ..	38.36	36.61	1903 ..	18.81	16.13
1904 ..	38.87		1904 ..	18.50	
1905 ..	37.71		1905 ..	17.69	
1906 ..	36.52		1906 ..	16.59	
1907 ..	34.75	36.61	1907 ..	16.44	16.13
1908 ..	37.49		1908 ..	17.67	
1909 ..	37.63		1909 ..	15.01	
1910 ..	36.65		1910 ..	14.85	
1911 ..	34.26		1911 ..	16.34	
1912 ..	33.71		1912 ..	13.91	
1913 ..	32.54		1913 ..	14.17	

YEAR.	ZYMOTIC DEATH RATE PER 1,000.		YEAR.	INFANTILE DEATH RATE PER 1,000 BORN.
1887	1887	.. 201.0
1888	1888	.. 177.7
1889	..	2.30	1889	.. 166.0
1890	..	3.30	1890	.. 172.6
1891	..	2.10	1891	.. 174.9
1892	..	2.50	1892	.. 146.1
1893	..	3.40	1893	.. 177.6
1894	..	3.30	1894	.. 177.0
1895	..	2.27	1895	.. 183.0
1896	..	3.72	1896	.. 182.0
1897	..	2.17	1897	.. 147.5
1898	..	3.41	1898	.. 198.8
1899	..	2.93	1899	.. 169.0
1900	..	2.44	1900	.. 197.7
1901	..	3.41	1901	.. 177.3
1902	..	1.89	1902	.. 137.5
1903	..	2.34	1903	.. 174.6
1904	..	3.07	1904	.. 191.6
1905	..	3.01	1905	.. 179.4
1906	..	2.42	1906	.. 163.0
1907	..	1.56	1907	.. 148.3
1908	..	3.53	1908	.. 176.5
1909	..	1.78	1909	.. 140.6
1910	..	1.78	1910	.. 144.8
1911	..	3.50	1911	.. 188.6
1912	..	1.41	1912	.. 120.6
1913	..	2.07	1913	.. 136.4

The following table gives the chief rates for your district, the Administrative County, and for England and Wales per 1,000 of the estimated populations :

	CHESTER-LE- STREET.	ADMINISTRA- TIVE COUNTY.	ENGLAND & WALES.
Estimated Population ...	66.648	.. 950,558	.. 36,919,339
Birth Rate per 1,000	32.54	.. 30.60	.. 23.90
Death Rate per 1,000 ...	14.17	.. 15.10	.. 13.40
Zymotic Death Rate per			
1,000	2.07	.. 1.85	.. 1.07
Infant death Rate per			
1,000 born	136.40	.. 137.00	.. 109.00

	CHESTER-LE-STREET.	ADMINISTRATIVE COUNTY.	ENGLAND & WALES.
Death Rate per 1,000 living :—			
Smallpox	0·00 ..	00·00 ..	0·00
Scarlet Fever	0·06 ..	0·15 ..	0·06
Diphtheria.....	0·18 ..	0·19 ..	0·12
Fever (Enteric)	0·06 ..	0·06 ..	0·04
Measles	0·61 ..	0·41 ..	0·28
Whooping Cough	0·16 ..	0·18 ..	0·14
Diarrhœa	0·99 ..	0·85 ..	0·55
Phthisis	0·70 ..	0·89 ..	
Other Tubercular Diseases	0·81 ..	0·53 ..	
Acute Respiratory Diseases other than Phthisis ..	2·10 ..	2·53 ..	

PHTHISIS.

The number of cases of Pulmonary Tuberculosis notified during the year has been 82. Of these 21 or 25·9 per cent. are under 15 years of age, and 21 or 25·9 per cent are 15 and under 25 years old, and 35 or 42·9 per cent. are 25 years and under 45 years of age, so that 74·6 per cent. of these deaths are amongst individuals aged 15 or upwards.

The notifications of other Tubercular Diseases, such as Tubercular Meningitis, Tubercular Abdominal Diseases, and Tuberculosis of bones, &c., equal 57. Of these no fewer than 45 or 78·9 per cent. occurred amongst those who have not reached 15 years of age, and 12 or 21·1 per cent amongst those who have passed 15 years of age.

These percentages bring prominently to one's mind the difference between the ravages of tubercle as it attacks the different organs of the body.

Under the voluntary notification of Phthisis which prevailed in your district during 1911, I received 34 notifications of Phthisis in that year, and under the Tuberculosis Regulations of 1911, I received 79 notifications of Phthisis during 1912, as compared with 82 notifications during this year. The Regulations of 1912 respecting the notification of Tubercle did not come into operation until the 1st February, 1913, so that next year under the same order there will probably be a slight increase in the notifications.

This year 50 deaths from Phthisis were registered, as compared with 37 last year, but as 3 of these deaths were of individuals not belonging to your district, the nett number

of deaths was 47. The number of deaths from Phthisis during 1911 was 48. This gives a death rate of 0.70 per 1,000, as compared with a death rate of 0.56 per 1,000 last year, and with 0.75 per 1,000 during the previous year.

The deaths from other Tubercular Diseases such as I have just enumerated amounted to 54, as compared with 40 last year, and with 53 during 1911. This gives a death rate of 0.81 per 1,000.

The total deaths from Tubercular Diseases this year equal 104, as compared with 77 last year, and with 101 during 1911.

The death rate from all Tubercular Diseases is 1.51 per 1,000, as compared with 1.16 per 1,000 last year, and with 1.58 per 1,000 during the previous year. The death rate of all Tubercular Diseases in the Administrative County is 1.42 per 1,000, so that your district is higher by 0.09 per 1,000 than the County average.

PREVENTION OF TUBERCULAR DISEASES.

The Supervision, Treatment, and Prevention of Tubercular Diseases have to a very great extent passed from the District Medical Officer to the County Insurance Committee so far as direct active measures are concerned. This may at first sight be considered objectionable from a localised point of view, but when one considers that the provisions of the Insurance Act relating to this disease are not administered by the local authority, it is obvious that for administrative reasons alone, it is highly advisable that the supervision and prevention of tubercular diseases should be under the purview of that Authority which is charged with the treatment of those unfortunates.

The County Tuberculosis Officer and his Assistants, including the County Health Visitors, undertake the visiting and revisiting of Tubercular patients.

The amount of money, care and time spent on the Tubercular at the present time is enormous, and one must often ask himself the question, "Is that money being spent to the best advantage?" This advantage is wider, much wider, than the "Tubercular." It means to the community at large extinction of the disease if carried out to the best end.

When Sanatorium treatment sprang into life, it was spelt with a very large capital S, and the laymen believed, and does

now believe, that he has only to get into a Sanatorium, when his woes will cease, and in a few weeks he will leave that Institution perfectly cured of his disease.

Well, all those who have had experience of Sanatoria know the opposite. The failure of Sanatorium treatment to approach the ideal set up by the layman is not the fault of Sanatorium treatment, but the fault of the layman, and the want of money to attain what can under the best conditions of the invalid be obtained by such treatment.

Sanatorium treatment will no doubt arrest effectively early tubercle of the lung, indeed one knows that in a huge number of cases of tubercle of the lung the disease has been arrested effectively without Sanatorium treatment.

Such treatment cannot, and does not, effectively arrest advanced disease of the lung. It may do, and generally does, arrest tubercular disease for such time as the sufferer is in the Sanatorium, and often for some time after he leaves the Sanatorium, provided he is able to house himself properly and obtain suitable work. But there is the difficulty, and up to the present moment the difficulty of properly housing and sufficiently feeding the consumptive who cannot undertake his ordinary work has not been overtaken, nor yet has any real attempt been made to mitigate the condition of the consumptive so far as housing and feeding are concerned. Sanatorium treatment is without doubt a very necessary item in the treatment and especially in the prevention of Phthisis, but it is only one item. There are others, such as the supervision of our milk supplies. No real advance has been made in the supply of non-injurious milk, and so long as tuberculous milk is sold, so long will one of the doors by which an invasion of tubercle can take place be left open, and without doubt many cases of tubercle in the young person is due to this source of infection.

I consider that the chief source of danger from Tubercle is the house. I do not mean that the walls and flooring of a house are the means by which Tubercle is spread, but I mean that the Consumptive, in the later stages especially, is not able to earn any wages, the support of the household falls on the wife or children, or Poor Law, the wage-earning capacity of whom is small, and perforce the family is driven into a small, and may be, insanitary house, in which there is every scope for infection of the whole household.

I consider that those responsible for the treatment and especially the prevention of Phthisis should divorce their energies somewhat from Tuberculosis Dispensaries and Sanatoria, and spend a considerable part of the money now devolved to these institutions in providing better housing conditions, and feeding, to the Consumptive unable to work, and even to the Consumptive partially able to work.

If better houses were provided for these people than their own means enable them to live in, there would be less chance of the whole family being infected by the patient.

Let the Consumptive be carefully supervised, often visited, continually urged to be careful regarding the disposal of his expectorations, and above all to sleep by himself. Money spent in house provision, feeding and supervision, will be much more fruitful than an equal sum spent on Sanatoria and Tuberculosis Dispensaries alone.

Too much attention has been centred on Sanatoria and too little provision made for controlling the real points of attack, viz., the consumptive who lives in a small house and sleeps in the same room which probably all the family have to share.

Many bacteriologists will tell one that practically all cases of Phthisis have been infected in early youth, not from Phthisical patients, but from such an article as milk, and they are able to show by experiments that materials ingested are deposited in the lungs.

Such a source may be the point of the commencement of Phthisis, yet it is wonderful how many cases of Phthisis will give a history of contact years before with one or more persons who have ultimately died of Phthisis.

I am rather inclined to believe from clinical experience at least, that the very great majority of cases of Phthisis have been infected by a previous case of the same disease. Should Milk be the source or even the chief source of Phthisis, a real and eventually cheap remedy would be to slaughter every tubercular cow in the kingdom, and continue slaughtering every animal which showed tubercular disease in the future.

Milk containing *Bacillus Tuberculosis* and tubercular meat should be vigorously forbidden to be used for human food, but I doubt very much if every tubercular cow was dead that Phthisis would *ipso facto* cease to exist. Other means are required, and I believe that if one could prevent by any means

the infection of the healthy by the diseased person, Phthisis would cease to exist, just as some of our well-known infectious diseases, such as Typhus, Plague and Leprosy have ceased to exist in this country.

DEATHS FROM ACUTE RESPIRATORY DISEASES OTHER THAN PHTHISIS.

The deaths from these diseases (viz., Bronchitis, Pneumonia, Pleurisy, and other Acute Respiratory Diseases) number 140, as compared with 162 last year, and with 191 during the previous year.

This gives a death rate of 2.10 per 1,000, as compared with a rate of 2.39 per 1,000 last year, and with 2.99 per 1,000 during the previous year. The same rate for the Administrative County is 2.53 per 1,000, as compared with 2.18 per 1,000 last year.

UNCERTIFIED DEATHS.

The number of deaths, the cause of which has neither been certified by a qualified medical practitioner nor has been the subject of a Coroner's Inquest, are 11, as compared with 14 last year. Of these 2, or 18.2 per cent. were of children under one year old. This is equal to 1.16 per cent. of all deaths, as compared with 1.58 per cent. last year, and with 1.62 per cent. for 1911.

The percentage of uncertified deaths of all deaths in England and Wales for the year is 1.2.

INFECTIOUS DISEASES.

(EXCLUDING PHTHISIS).

The number of infectious diseases notified during the year are 464, as compared with 349 last year, and with 377 during the previous year.

Of these, 300, or 64.65 per cent. are Scarlet Fever, as compared with 67.02 per cent. last year; 29, or 6.25 per cent. are Enteric Fever, as compared with 3.43 per cent. last year; 61 or 13.57 per cent. are Diphtheria, as compared with 11.17 per cent. last year; 1, or 0.21 per cent. is Puerperal Fever and 73, or 15.73 per cent. are Erysipelas, as compared with 18.62 per cent. last year.

The following table gives the statistics for each quarter of the year, and the number of notifications, with the attack rate per 1,000 of the population since the adoption of the Notification of Infectious Diseases Act in 1890.

First Quarter		78 cases.
Second	„	86 „
Third	„	91 „
Fourth	„	209 „

YEAR.	NO. OF NOTIFICATIONS.		ATTACK RATE PER 1,000.
1890	403	.....	9.61
1891	412	.....	8.15
1892	574	.....	11.14
1893	842	.....	16.15
1894	538	.....	10.14
1895	711	.....	12.75
1896	819	.....	14.26
1897	378	.....	6.63
1898	403	.....	6.87
1899	485	.....	8.13
1900	683	.....	11.27
1901	822	.....	13.51
1902	818	.....	12.95
1903	1,211	.....	18.78
1904	789	.....	11.85
1905	655	.....	9.49
1906	484	.....	6.82
1907	498	.....	6.82
1908	685	.....	9.14
1909	574	.....	9.14
1910	353	.....	5.52
1911	377	.....	5.90
1912	349	.....	5.29
1913	464	.....	6.96

As many cases as possible are visited, and instructions given as to the best means of preventing the disease spreading. How carefully these instructions are followed in the majority of cases, I am afraid coincides with the convenience of the parents, and not with the protection of the neighbouring children.

The following table gives the attack rate of all notifiable diseases per 1,000 of the population both for the Rural District and the Administrative County :—

	CHESTER-LE-STREET.		ADMINISTRATIVE COUNTY.
Smallpox	0.00	..	0.00
Scarlet Fever	4.50	..	5.86
Diphtheria.....	0.91	..	1.51
Enteric Fever	0.43	..	0.38
Typhus Fever	0.00	..	0.00
Puerperal Fever	0.01	..	0.02
Cholera	0.00	..	0.00
Plague	0.00	..	0.00
Erysipelas	1.09	..	0.76
Glanders in Man	0.00	..	0.00
Anthrax in Man	0.00	..	0.00
Cerebral Spinal Meningitis	0.00	..	0.00
Acute Polio-Myelitis ...	0.00	..	0.00
Pulmonary Tuberculosis	1.23	..	1.89
Other Tubercular Diseases	0.85	..	1.31

The attack rate of all the infectious diseases mentioned in the above table is 9.04 per 1,000, as compared with an attack rate of 10.68 per 1,000 for the Administrative County.

SMALLPOX.

Your district was free from Smallpox during the year.

There is no diminution of the number of exemptions from Vaccination. The mass of persons susceptible to this disease is increasing, and since the first line of defence is disappearing in strength every day, there only remains efficient hospital isolation, an excessive costly luxury, to guard the health and life of the unvaccinated, as well as of the imperfectly vaccinated, from disease and extinction.

When this dire enemy comes, there will be a certainty that the extremely valiant, when danger is absent, will greedily snatch at vaccination, and the story of "Auld Clotie" will be told again and again.

In the following table I give the figures for Vaccination in the Chester-le-Street Poor Law Union:—

Year.	Births.	Vaccinated.	Exempted.	Percentage of Unvaccinated Children.
1905	2612	1966	47	2.33
1906	2588	1964	59	2.91
1907	2534	1792	124	6.47
1908	2810	1682	523	23.71
1909	2876	1525	690	31.15
1910	2829	1525	853	35.87
1911	2685	1492	853	36.37
1912	2696	1329	970	42.19
1913	2696	1320	977	42.57

There is only a very slight increase in the number exempted this year compared with that of last year, and is by far the lowest increase of this dangerous and probably fatal practice, which has been observed for the past six years, and which the law makes easy. I am quite certain that the intelligence of the great mass of the people is not against vaccination, but as Smallpox is an unknown disease to the millions, it is looked upon with impunity, and its results having been unseen by the present generation, its dangers and disfigurements are not realised. Whilst I am strongly impressed with the belief that the many are quite indifferent as to whether their children are vaccinated or not, I freely admit that there are some who honestly believe that vaccination is hurtful, and those are perfectly entitled to their convictions, but it behoves a sanitary authority to do the utmost to protect those individuals against the dangers resulting from their beliefs, however far from accurate these beliefs may be.

SCARLET FEVER.

This disease showed considerable activity during the fourth quarter of the year, and totalled in that quarter nearly as many cases as the first three quarters produced.

This year there were notified 300 cases as against 234 last year.

The attack rate is 4.50 per 1,000, as compared with an attack rate of 3.55 per 1,000 last year, and with an attack rate of 2.31 per 1,000 during the previous year.

The attack rate for the Administrative County has been 5.86, or according to the Report of the Local Government Board 5.93 per 1,000 of the estimated population for 1913.

The highest attack rate in the County is 25.64 per 1,000, and the lowest is 1.17 in one of the smallest Rural Districts.

The type was mild and deaths few, viz., 4, as compared with 2 last year. This equals a case mortality of 1.33 per cent. as compared with a case mortality of 0.84 per cent. last year, and with 3.38 per cent. during the previous year.

This mild type prevalent for several years continues, but I am not prepared to say that this mildness is advantageous to the young generation. The very mildness of the disease and the few deaths are making people look with absolute indifference on Scarlet Fever, and little if any attempt is made to prevent the spread of the disease from house to house. Its onset inspires no terror, and its presence prevents not the usual gossiping and intervisiting between infected and noninfected households.

But though mild Scarlet Fever gathers few victims for the grave, during its course it has a rich harvest of children who pass apparently untouched through the initial stages of the disease, but who bear its results to their disadvantage for years, probably for life, in the shape of damaged ears or kidneys, and who often in after early life fall victims to these diseases.

There has been a disease prevalent during the fourth quarter of this year which has been very frequently notified as Scarlet Fever.

From my experience at the hospital it is evident to me that a large proportion of the 145 cases of Scarlet Fever which were reported during the fourth quarter were not cases of true Scarlet Fever, but were cases of that illness which Dr. Duke, of Rugby, some years ago described and named "Fourth Disease."

I admit that in many cases it is extremely difficult and in some cases impossible to diagnose "Fourth Disease" from the initial Clinical symptoms of mild Scarlet Fever. It is a mild disease, causing probably no deaths, so are many cases of true Scarlet Fever. It is fleeting in its symptoms, so are many cases of true Scarlet Fever.

There is no peeling so far as I have seen ; one has something very near to no peeling in mild cases of true Scarlet Fever.

The medical practitioner is beset with many difficulties in diagnosing this disease, and many miss the difference between the two diseases, whilst some affirm that "Fourth Disease" is not a separate disease, but is a form of Scarlet Fever or German Measles.

My experience is that many cases notified as Scarlet Fever, and which must have appeared true Scarlet Fever to the notifier, has developed Scarlet Fever of a severe type within 2 to 7 days of admission to hospital, and further that cases of Scarlet Fever have developed this mild form of disease which I believe to be "Fourth Disease."

The following table gives the number of cases and the attack rate for the district since 1890, and the second table compares the attack rate of your district with that of the Administrative County.

YEAR.	NUMBER OF CASES NOTIFIED.	ATTACK RATE PER 1,000.
1890	284	5.73
1891	267	5.28
1892	404	7.81
1893	331	6.31
1894	304	5.72
1895	495	8.90
1896	553	9.75
1897	217	3.80
1898	273	4.65
1899	333	5.40
1900	527	8.69
1901	631	10.37
1902	554	8.87
1903	872	13.52
1904	458	6.88
1905	383	5.55
1906	223	3.14
1907	264	3.61
1908	390	5.20
1909	379	6.20
1910	199	3.11
1911	148	2.31
1912	234	3.55
1913	300	4.50

The following table gives the respective rates for the County and your district since 1894 :—

YEAR.	DISTRICT.	COUNTY PER 1,000.
1894	5·72	5·54
1895	8·90	6·62
1896	9·75	5·88
1897	3·80	3·45
1898	4·65	4·11
1899	5·40	6·17
1900	8·69	7·47
1901	10·37	7·97
1902	8·87	7·08
1903	13·52	6·90
1904	6·88	5·74
1905	5·55	4·24
1906	3·14	3·18
1907	3·61	2·68
1908	5·20	3·04
1909	6·20	4·37
1910	3·11	3·94
1911	2·31	3·50
1912	3·55	5·94
1913	4·50	5·93 ¹

MEASLES.

This disease was much more fatal this year than it was last year, though there was not at any time one of those huge outbursts so common twelve or twenty years ago.

The disease appeared with fatal results in 10 townships, as compared with 9 townships last year. The greatest number of deaths were in Birtley (9), Pelton and Witton Gilbert (8 each), and in Edmondsley (5).

This gives a death rate of 0·61 per 1,000, as compared with a death rate of 0·39 per 1,000 last year, and with a rate of 0·54 per 1,000 during the previous year.

The death rate for the Administrative County is 0·41 per 1,000, and 0·28 per 1,000 for England and Wales.

All the deaths save one are under five years of age, and are distributed in age periods as follows :—Under 1 year old, 11 or 26·83 per cent. ; over 1 and under 2 years old, 20 deaths or 48·78 per cent. ; and between 2 years and 5 years old, 9 deaths or 21·95 per cent., whilst there is only 2·43 per cent. over 5 years of age.

¹ Figures of L.G.B.

It is thus seen that the most fatal period of life for Measles is in the second year of the child's existence.

ENTERIC FEVER.

The incidence of Enteric Fever in your district during the year has not been marked though considerably greater than that of last year. The number of cases reported have been 29, as compared with 12 cases last year.

The climatic conditions of the year under review, in the County, though more favourable to the presence of this disease, were not ideal for Enteric Fever. The summer was dry but not particularly so. There was much dull weather up to the middle of August, and though sunshine was plentiful after that period and rain not much, there appeared to be always a considerable amount of subsoil water present, so that there was not an arid, dry soil, ready to support much of the bacterial life from which Enteric Fever is propagated.

Six of the notified cases were evidently not Enteric, and their nature is specified in Table XIII.

The greatest number of cases were in the townships of Washington (9), Lamesley (6), and Harraton (3).

Every case was carefully investigated and the probable cause of each case, with the nature of its sanitary surroundings will be found in detail in Table XIII.

The attack rate of all notified cases per 1,000 of the population has been 0.43, as compared with an attack rate of 0.18 per 1,000 last year, and with 0.89 per 1,000 during the previous year.

The attack rate for the Administrative County is 0.38 per 1,000, and the attack rate for England and Wales is 0.22 per 1,000.

The Counties with the highest attack rate are Lancashire, 0.50; Northumberland, 0.47; Monmouth, 0.40; and Durham, 0.38 per 1,000.

Often are these Counties, all or some of them, bracketted as having the lowest sanitary conditions, as judged by filth diseases or Infant Mortality.

The following table gives the number of cases, and the attack rate per 1,000 for each year since 1890, which was the commencement of compulsory notification of infectious diseases.

YEAR.	NO. OF NOTIFICATIONS.	ATTACK RATE. PER 1,000.
1890	53	1.26
1891	71	1.40
1892	69	1.34
1893	353	6.77
1894	111	2.09
1895	72	1.30
1896	108	1.88
1897	33	0.57
1898	39	0.66
1899	57	0.95
1900	57	0.94
1901	71	1.16
1902	67	1.07
1903	32	0.49
1904	48	0.71
1905	78	1.13
1906	65	0.91
1907	23	0.31
1908	112	1.49
1909	51	0.81
1910	28	0.44
1911	57	0.89
1912	12	0.18
1913	29	0.43

In Table VII will be seen the distribution of the disease so far as townships and months of the year are concerned.

As to the causes operating in the production of Enteric Fever during the year, there were no definite findings able to be made. There were no cases caused by milk, nor yet any localised outbreak wherein the "carrier" would likely be the delinquent. It is to be noted however that, in those areas supplied regularly or intermittently with water from the deep wells of the Limestone areas, the cases preponderated.

In the townships of Washington, Harraton and Burnmoor, townships using chiefly the deep well water, there were 13 of the cases, equalling 44.8 per cent. of the total.

In these townships there are only 12,810 of a population.

Comparing this area with the remainder of your district wherein there are 53,838 people, the incidence of Enteric Fever in the Deep Well area is 1.01 per 1,000, whilst it is only 0.29 per 1,000 in that part of your district supplied by upland water, or nearly 4 times greater in the former than in the latter.

In the Administrative County the highest incidence of Enteric Fever is 1·14 per 1,000, whilst six Urban and 2 Rural Districts have not had any cases.

Of the Rural Districts free from Enteric Fever one is a very rural district, viz., Barnard Castle, and the other is an entirely water-closeted area.

DIPHTHERIA (OR MEMBRANOUS CROUP).

This disease has been much more prevalent this year than last year, the number of cases notified being 61, as compared with 39 last year, and with 92 during the previous year.

This gives an attack rate of 0·93 per 1,000, as compared with an attack rate of 0·59 per 1,000 last year, and with 1·44 per 1,000 during the previous year. The disease appeared in ten townships, the greatest number of cases in any township being 14.

As to age distribution, 21 cases, or 34·4 per cent. were under 5 years old, and 28 cases, or 45·9 per cent. were between that age and 15 years. It is thus a disease of infancy, there being 80 per cent. of all the cases occurring during school life. That suggests that many cases probably have their origin at school, whilst the younger members of the family may be infected from school children. These remarks are quite hypothetical, and it would require much more evidence than I possess to say positively that school is the chief propagating centre for Diphtheria.

The case mortality this year equals 19·67 per cent., as compared with 12·82 per cent. last year, and with a mortality of 6·52 per cent. the previous year.

Antitoxin has been supplied to 9 medical practitioners during the year, the quantity used by them being 168,000 units.

The following table gives the number of cases and the number of deaths in each quarter of the year.

First Quarter,	7 cases notified,	2 deaths,	28·57 per cent.
Second	„ 6	„ 1	„ 16·66
Third	„ 21	„ 4	„ 19·04
Fourth	„ 27	„ 5	„ 18·51

The following Table gives the number of cases and the attack rate per 1,000 since the adoption of the Notification Act of 1890.

YEAR.	NO. OF NOTIFICATIONS.	ATTACK RATE PER 1,000.
1890	6	0.11
1891	15	0.30
1892	27	0.52
1893	29	0.55
1894	15	0.28
1895	16	..
1896	57	1.00
1897	21	0.36
1898	16	0.27
1899	10	0.16
1900	17	0.28
1901	33	0.54
1902	64	1.02
1903	128	1.98
1904	130	1.95
1905	80	1.15
1906	112	1.58
1907	128	1.75
1908	104	1.38
1909	76	1.21
1910	53	0.83
1911	92	1.44
1912	39	0.59
1913	61	0.93

The attack rate for the Administrative County was for the year 1.53 per 1,000, and that for England and Wales, excluding Ports, was 1.39 per 1,000.

Diphtheria was present in every sanitary district in the Administrative County except Barnard Castle Urban and Hartlepool Rural Districts.

PUERPERAL FEVER.

There has been only one case notified during the year, and one death registered from the same disease. Last year there were no cases notified or deaths registered.

WHOOPING COUGH.

During the year 11 deaths from Whooping Cough have been registered, as compared with 29 deaths last year and with 34 deaths during the previous year. The disease was fatally present in 3 townships, and the greatest number of deaths (8) occurred in the township of Birtley.

DIARRHŒA.

This disease was more prevalent this year than last, due to the somewhat warmer weather than was experienced last year, yet the year could not be called a Diarrhœa year, for the same reasons as I have just mentioned under the remarks concerning Enteric Fever. I do not think I need labour the cause of this disease. I have so often called attention to the causes which rule the incidence of this disease, so fatal in early years and of late years more fatal in our declining years than apparently it was 20 years ago.

The number of deaths from Diarrhœa this year are 66, as compared with 27 last year, and with 134 during the previous year.

This gives a death rate 0.99 per 1,000, as compared with 0.41 per 1,000 last year, and with 2.09 per 1,000 during the previous year.

The rate for the Administrative County was 0.85 per 1,000, whilst that for England and Wales was 0.55 per 1,000.

In townships having a population of 2,000 and upwards, the highest rates were in Lumley Great (2.23), Lumley Little (1.46), Urpeth (1.42), and Edmondsley (1.31); and lowest in Birtley (0.46), Witton Gilbert (0.53), Washington (0.61), and Usworth (0.62).

ERYSIPELAS.

The number of cases notified during the year has been 73, an attack rate of 1.09 per 1,000. The attack rate for the Administrative County is 0.77 per 1,000, whilst that for England and Wales is 0.63.

OTHER NOTIFIABLE DISEASES.

Included amongst these diseases are Cerebro-Spinal Meningitis and Acute Polio-Myelitis. No cases have been notified and no deaths have been registered.

BACTERIOLOGICAL EXAMINATIONS.

Disease Suspected.	No. of Specimens Submitted.	Results.	
		Positive.	Negative.
Diphtheria.....	12	5	7
Enteric Fever	11	6	5
Tuberculosis (Phthisis)	59	12	47

The County Council now undertake the bacteriological examination of certain pathological specimens, and notify the result to the Medical Officers of Health from whose districts the specimens are sent. The examinations are made by the Professor of Bacteriology in the College of Medicine, Durham University.

DISINFECTION OF HOUSES, ARTICLES OF CLOTHING, &c.

The question of the disinfection of houses, clothing, &c., is in the same position as formerly, and I hold the same opinions as I expressed in my last year's annual report.

SCHOOLS.

The practice described in my last year's Report respecting the advising of the Education Authority as to the presence of notifiable diseases has been continued this year.

It has not been possible to trace any outbreak of infectious disease or an increased incidence of any such disease to any school, but probably school life is responsible to some extent for spreading Scarlet Fever, Measles, and Diphtheria, as well as Whooping Cough.

Fungoid disease of the scalp does not appear to be lessening, judging by the number of cases suffering from ringworm which are admitted to the Isolation Hospital.

Phthiriasis appears to me to be fairly frequent, and Ecthyma is frequently met with. All these simple and curable diseases or conditions suggests an increased rigid enforcement of cleanliness by school medical inspectors, assisted by the schoolmasters, who see those neglected cases daily.

WATER SUPPLY.

The different water supplies are of good quality so far as Chemical Analysis shows.

The Waters are upland plumbo-solvent in its natural state, upland not plumbo-solvent, and Deep Well not plumbo-solvent.

The Weardale and Consett Water Co. who supply the first-named Water, add quick lime to their Water in sufficient quantity to prevent any absorption of lead.

The Weardale and Consett Co. supplies about 50 % of the district, Newcastle and Gateshead about 29 % and about 19 % are supplied from the Sunderland and South Shields Company

and the Hetton and Lambton Collieries, a private Company ; whilst about 1,500 persons or roughly two per cent. are supplied from isolated wells and by a Colliery Company with water, some of which is pumped from old workings in their pit, and some of it from an old bore hole. This company supplies about 700 persons with water.

Some further progress has been made to supply Fugar Bar, Pennyfine, and Bainsley Lane with water. The number of persons is not many, about 20 houses.

The long drawn out negotiations regarding the supply of a greater quantity of water to the townships of Lumley Great and Lumley Little, with a united population of 4,288, have now crystallised, and the work of constructing a small reservoir and a line of pipes will be commenced in the near future, and these villages will get an increased quantity of water some time during 1914.

There is a scarcity of water in New Washington, due in all probability to a deficiency in pipe area, owing to the great increase of the population during the past 18 years, before which the water supply for the district was introduced.

This supply should be immediately tackled, and an increased quantity provided.

The supply of water to Kibblesworth (173 houses) is at present deficient in quantity. Chemically the quality was good at the date of analysis. It is, however, a hard water, and receives surface drainage from cultivated fields, and though it has not been guilty of any case of Enteric Fever during the past 18 years, yet it is a potentially unsafe water. Besides, there is an insufficient supply, and consequently in dry weather and often during the latter part of the week, when the small amount stored is exhausted, there is no water to the houses at the higher part of the village.

I am about to report on this water to your Council, and I trust that a supply sufficient in quantity and good in quality may be supplied. There is no difficulty in doing this, since the mains of the Weardale Company are within $1\frac{1}{2}$ miles of this village, and their calibre is sufficiently large to supply this village with water.

All the companies give a constant supply, and so far as I know there are no storage cisterns in any house in your district.

Though the Weardale Company a short time ago installed a large rapid filtering plant, in addition to their previous slow filtering beds, their water still retains a slight peaty colour.

REMOVAL OF HOUSE REFUSE.

This subject has given your Council much unpleasant food for consideration during the year. After years of trial, the old system of contracting has admittedly broken down, and your district has been generally imperfectly scavenged for years. This was partly due to the system and partly to the contractors.

The system in my opinion was the chief cause. A man got a contract for a small area. Principally, he was a cartman, not a scavenger. He removed furniture, carted stores, and at times farmed a small piece of ground. None of these jobs could wait, the scavenging in his opinion could. Instead of scavenging being considered a mighty portion of the health asset of the district, it was, by the contractor, looked upon as a disagreeable job, to be done when convenient ; and accordingly, it was carried out in an inefficient and perfunctory manner.

After the refuse was removed, this offensive and death-dealing material was dumped where the contractor could or would, near houses, in fields by the roadside, and sometimes on foot paths, and lay there until an inspector of nuisances had it removed, but sometimes his efforts were in vain.

After repeated Committee meetings, their labours were condensed in a report which was adopted by the Council, and is as follows :—

1. That the contracts be let for 12 months.
2. That the Rural District be divided into larger areas for scavenging.
3. That an age limit be inserted in the contracts to regulate the minimum age of the persons employed by a contractor.
4. That a minimum wage be paid to workers.
5. That the Council insist on the use of covered carts by all contractors.
6. That all tips for the deposit of refuse be approved by the Council, and receive a covering of soil or gas lime at stated periods.
7. That the contractors devote the whole of their time to the work.
8. That the contractors be paid monthly instead of quarterly.

9. That the contractors be held responsible for the collection of loose papers on the scavenging tips.

These conditions are much in advance of the old conditions, and, on the face of them, there should have been a marked improvement in the scavenging.

The increase of the areas to be scavenged was good, since a large area could keep a contractor doing that work alone, whilst a contractor for a small area had to depend on other work to make a living. A contractor should also be doing better work if he was compelled to do scavenging work and no other work, since by this restriction the temptation to do some work which could not wait was removed.

But, as in all kinds of work, terms of agreement do not make the work good, unless the worker is good and imbued with a conscientiousness to do good work, irrespective of any terms forcing him to do good work.

The new contracts commenced on the 1st October, and one cannot judge how much improvement is to take place from the work done during the three months the new conditions have been at work.

If contracting, as now understood, fails to produce good scavenging, there does not appear to me to be any alternative than for your Council to undertake the work yourselves by your own staff.

The new conditions have increased considerably the cost of scavenging, and I do not think that the cost would be increased by your Council undertaking the work, but I am quite sure the efficiency would be considerably increased.

During the first nine months of the year, under the old method of contracting, complaints of bad scavenging were considerable

Mr. Brown, Inspector of the Birtley sub-area, says "Team Colliery in Lamesley Parish and the southern half of Birtley Parish were neglected at times very much." "Other parts of this sub-area were fairly well, and well done."

During the fourth quarter of the year, when the new conditions were in force, "that the removal of refuse in the Division, with the exception of a few cases of neglect at Eighton Banks, and a few isolated houses in the eastern division of Urpeth Parish, has never been better done."

In the Witton Gilbert sub-area Mr. Swaddle reports, "for the first 3 quarters of the year the work in the parishes of Edmondsley, Coken, Plawsworth, and Witton Gilbert village and Daisy Hill village of Witton Gilbert Parish was attended to in a fairly satisfactory manner, but the work in Pelton Parish and Lumley village was constantly neglected,

and the work in Saceriston village of Witton Gilbert Parish was only moderately attended to."

"Under the new Contracts" "the work in Edmondsley, Plawsworth and Witton Gilbert Parishes has received better attention."

"In Pelton Parish the work has been continually neglected." "In Great Lumley Parish the first contractor only held the work for 21 days, and during that period 80 % of the refuse was removed by hired carts. The present contractors are giving the work satisfactory attention."

In the Washington sub-area Mr. Wadge reports, "In the parish of Burnmoor, where the work is being done by the District Council's own men, the work is efficiently done." In other parts of the Washington area "It has been necessary to make 26 complaints in writing and many verbal complaints to the different contractors by reason of neglect."

These extracts very plainly depict a deplorable condition of affairs, and some parts of it, which deals with the fourth quarter of the year do not read with the ring of great improvement.

The covering of the carts is not always perfect, the carts themselves are not in all cases properly constructed, or are old and not fit for removal of foul ashes. The back doors are not well-fitting, and ashes fall on the roads. The men do not always use their covers, consequently ash and paper blow about, and one often meets a cloud of filthy ash and foul papers on the highways.

I do not wish to dogmatise too much on the failings of contractors, but I am afraid the ordinary workman and his employer do not realise the dangerous nature of the material they are removing. I am not prepared to say that at all seasons of the year foul ashes are highly dangerous, nor do I consider that this material, however objectionable it may be, is the death distributor many depict it. One hears of it disseminating Phthisis, Scarlet Fever, Diphtheria, and other ailments. Well, I do not believe it is guilty of all these charges, but in the summer time, and other warm parts of the year, foul ashpits and their contents, along with the tip, are dangers of no mere fancy. Diarrhœa and Enteric Fever are certainly caused and spread by ashpit privy contents, either in the ashpits, streets, or tips.

I have no hesitation in saying that one commences at the wrong end of the scavenging evil in endeavouring to get good scavengers, good covered carts, and good tips, if one concedes the principle that bad scavenging is an evil, and a disease fomentor. But should there be any danger from bad scavenging, or rather should there be any need to remove

disease-producing refuse from ashpits. If the ashes from ashpits contained only innocuous inorganic dust and some vegetable matter, the danger of any disease arising therefrom would not exist, and the danger of the tip would disappear, and ashes inorganic in character could be deposited in any convenient place.

That this goal is in sight is presaged by a resolution of the highest importance from a health point of view adopted by your Council in November, to the effect that in the future wherever there were sufficient sewers and a water supply all new houses had to be provided with a water-closet or water-closets.

This marks a new era in the sanitary improvements in your district. I am confident that your high infant mortality caused to a great extent by summer diarrhœa, can only be reduced by the abolition of foul ashpits and their contingent fouler refuse tips. If this improvement be slow, even after the complete abolition of the ashpit privy and ashelocet one need not worry, because time will prove abundantly the wisdom of the change, and the ample repayment of the costs, in saving human life, and especially now should the life of the infant be more and more one's care to preserve in this persistent and continual fall in the number born becoming more and more marked.

The following table gives the cost of scavenging for the year with the approximate cost in pence per house under the old contracts.

TOWNSHIP.	GROSS COST. PER ANNUM.			AVERAGE COST PER HOUSE PER ANNUM.	
	£	s.	d.		d.
Biddiek, South	10	14	6	..	99·0
Birtley	645	3	4	..	90·5
Burninoor	178	2	1	..	149·9
Coeken	14	16	6	..	85·5
Edmondsley	205	5	3	..	103·9
Harraton	299	6	9	..	108·2
Lambton	16	10	0	..	120·0
Lamesley	539	14	4	..	92·3
Lumley Great	153	9	8	..	79·0
Lumley Little	90	4	6	..	61·3
Pelton	751	17	5	..	101·0
Plawsworth	125	18	0	..	103·1
Urpeth	260	4	6	..	82·5
Usworth	522	7	0	..	83·0
Washington	623	5	0	..	94·7
Witton Gilbert	713	17	0	..	113·0

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The prices under the new system of contracting are considerably higher, as will be seen by comparing the table below with that above.

TOWNSHIP.	GROSS COST PER ANNUM.			AVERAGE COST PER HOUSE PER ANNUM.	
	£	s.	d.	d.	
Biddiek, South	13	19	6	..	129·0
Birtley	678	8	6	..	90·0
Burnmoor					
Coeken	19	5	0	..	132·0
Edmondsley	182	17	6	..	92·0
Harraton	300	0	0	..	119·0
Lambton	16	13	3	..	129·0
Lamesley	626	13	3	..	107·2
Lumley Great	256	17	0	..	132·0
Lumley Little	194	0	0	..	129·0
Pelton	925	3	6	..	124·1
Plawsworth	150	0	0	..	120·0
Ouston	93	15	0	..	132·0
Urpeth	304	0	0	..	97·1
Usworth.....	611	1	6	..	97·0
Washington.....	860	7	3	..	125·5
Witton Gilbert	774	17	6	..	112·5
<hr/>					
	£6007	18	9		

By the new contracts the cost of scavenging has increased by £855 per annum, or 16 per cent. more than under the previous contracts.

SANITARY IMPROVEMENTS ACCOMPLISHED DURING THE YEAR, AND REQUIRED IN THE NEAR FUTURE.

BARMSTON.

With a few exceptions the houses in this township are in good condition. It is well sewered and has a water supply from mains drawing their supply from the Sunderland and South Shields Water Co.'s reservoirs. There are a few exceptions to this rule.

BIRTLEY.

There are a fair number of improvements in this township, represented by improved ventilation in 4 houses in St. John's Place, Birtley, spouting at South Terrace, Warwick Square, and St. Bede's Row, Birtley, cement footpath at back and front of South Terrace, Birtley (26 houses), also at St. John's

Place, Old Hall (2 houses), Heslop's Yard (2 houses), East and West Terraces, and at back of Peareth Terrace, Ravensworth Terrace, Crow Row, and Grove Terrace.

In addition to these improvements many minor improvements have been carried out, viz., 44 houses have been generally repaired, 7 floors laid in cement, 8 houses improved water supplies, 20 new drains constructed, 69 drains remade or repaired, and 4 back yards concreted. The number of houses inspected under the provisions of the Housing and Town Planning Act of 1909, with particulars, will be found in Appendix A.

Sixteen streets with a lineal extent of 1077 yards have been made under the provisions of the Private Street Works Act.

The houses at Brown's Buildings which I have oftener than once mentioned in my Annual Reports continue in the same condition as formerly. They are not good houses, and something should be done to improve them. They are capable of improvement at a reasonable cost, and it would be a pity if these houses had to be closed through failure to repair them.

BURNMOOR.

There are still a considerable number of poor houses in this township. At Long Row, Burnmoor especially, the houses are low, dark, badly lighted, and one hopes that the owners of this village will at an early date rebuild the houses here. In this street 8 houses have been repaired by endeavouring to cure dampness in the walls, relaying floors, and improving light and ventilation.

COCKEN.

The few houses here are in moderately good sanitary condition.

EDMONDSLEY.

The streets in this village remain in much the same condition as in former years, and should be placed in a much more sanitary condition than at present.

In the township 3 houses were demolished and 3 houses erected in their stead. Seventeen houses have been generally repaired, 5 ash-closets erected, and 4 ash closets repaired, whilst 5 privy ashpits have been abolished.

HARRATON.

There has been some reconstruction work carried out in this township, and 19 houses have been closed as unfit for human habitation at the following places :—Low Flatts (4), West

Cottages (3), Trafalgar Row (3), Pelaw Grange (1), Biddick Row (4), Kirkup's Cottages (1), Chatershaugh (1), and Ferry-boat Cottages (2); and tenements have been reduced by other 3, one each at Rickleton, Pelaw Grange Terrace, and Waterside Cottages, so that there are by closing, 22 fewer houses in this parish than last year. Back to back houses have been made into through houses at 18-19 Pelaw Grange Terrace, 9-10 Rickleton, 4-5 Old Barley Mow, and 1-2, 3-4, Waterside Cottages, Fatfield.

Seventeen houses have been demolished (some of which were closed during 1912) at Biddick Row and as many built on their site, and 2 houses have been built at Pelaw Grange where one previously stood.

At the Old Barley Mow a block of houses, consisting of 3 through houses and 2 back to back houses, has been substantially repaired and greatly improved by renewing part of the roof, relaying ground floors, new windows, new staircases, new sculleries, new drains, paved areas, inside water taps, with new ash closets in place of old ashpit privies. These improvements being voluntary on the part of the Lambton Coal Company, the owners of this property.

Waterside, Fatfield, same owners, comprised one through house and four back to back houses. These houses have been made through houses and the property practically rebuilt, with the areas adjoining the houses cemented.

The houses in the Square, Fatfield, and the Long and Short Rows at Nova Scotia are not fit for human habitation, and should be closed.

There are other houses besides these in this township not fit for human habitation, but the scarcity of houses in this parish is so acute that it is impossible to close houses faster than is being done.

During the year 20 water closets for public buildings and 4 for houses have been provided, and in addition 13 ash closets have been built.

Nine streets with a length of 766 yards have been properly made during the year.

LAMESLEY.

Four of the remaining old houses in the Square, Kibblesworth, have been rebuilt during the year. Six houses have been closed, viz., Hill Top (1), Rose Cottage, Low Fell (1), Vale Mount Cottages (1), The Causey (1), and Pott's Buildings Eighton Banks (2). At Bewick Main a back to back house has been made a through house, lessening the separate houses in that village by one.

Ship Inn Cottages (2) at the Mount have been demolished.

Other improvements in this parish are 27 houses general repairs, including repairs to spouts, roofs, and improved lighting and ventilation, floors concreted (17); improved and enlarged windows (7); water supply improved (4); new drains constructed (21); drains repaired (39); inspection chambers constructed (13); yards concreted (47); yards enclosed with brick walls instead of with wood fences (42); concrete paths in front of houses (40 houses); and many other improvements of a minor nature. Nearly all these improvements have been made by the Birtley Iron Co. and Messrs. Bowes and Partners.

Eleven water closets and 8 ash closets have been built, whilst 8 ash closets, 10 privies, and 8 ashpits have been abolished.

There is still room for improving much of the property in this parish, but this improvement is proceeding steadily. This is a parish of ash closets and ashpit privies, and ample room exists for improvement in these foul receptacles.

At Eighton Banks three streets of 484 yards in length have been made, but there are others equally requiring to be made, and one hopes that the coming year will see this improvement of street making steadily taking place.

LUMLEY GREAT.

The condition of this township, especially of Lumley village, though far from ideal in its entirety, has been vastly improved during the past years. Some years ago five huge ashpits disfigured the main street of this old place. These have disappeared years ago, as have also many of the old houses such as Trunk Row, Blue Row, and Back of the Shaft, and modern houses of a good type have been erected in the place of antiquity.

Back of the Shaft, a short and crowded street of old houses, has been pulled down and 16 houses erected, leaving a wider street between the back and front houses.

In addition to these new houses, repairs of a general nature to houses in this township have been effected as follows:—houses generally repaired (16); floors laid in concrete (5); yards cemented (3); privies abolished (5); water closets provided (4); ash closets erected (4); drains constructed (15); drains reconstructed or repaired (12).

Many old houses still stand in this township, such as Goosey Pig Row, Paradise, New Chester, Hood's Fold, Woodman's Place, and Heron's Row.

Really the whole of the areas occupied by these houses should be cleared, and new houses erected on a properly conceived plan, and unless and until this idea is carried out it is useless tinkering with Lumley.

The village is well situated, disease is not prevalent, but those areas mentioned are overcrowded, the houses are damp, badly lighted and equally badly ventilated, and these conditions are potent factors in dissemination of tubercle in all its forms when once a tubercular subject resides in any of the houses I have just mentioned.

The sewerage system of this village is an unknown quantity. Its condition should be ascertained and remedied if found defective, as the old sewers and drains are supposed to be.

The water supply in this township has been deficient for several years, but there are evident signs that some time in the coming year (1914) there will be a much improved supply. The water, an upland one, supplied by the Weardale and Consett Co., is beyond suspicion as to quality, but the quantity is wholly deficient, and has been so for several years.

The only decently made street in the village of Lumley is the highway, and all the side streets require making.

LITTLE LUMLEY.

In this township the majority of the houses now are new, there being about one-fifth old and the remainder of quite recent construction.

That part of the township at the Sixth Pit is still disfigured by old insanitary ashpit privies, which should be replaced by water closets.

OUSTON.

In the village of Ouston a considerable amount of sanitary improvements have been made by the Birtley Iron Co., the owners. These improvements consist of general repairs to houses, *e.g.*, lighting and ventilation improved (23); spouting repaired (21); fire places put into bedrooms (2); room floors concreted (34); pantry floors concreted (18); ground floor rooms ceiled (22); yards concreted (19); self-contained yards, enclosed with brick walls (20); ground concreted in rear of houses where no enclosed yard exists (20); and other minor repairs in places have taken place.

One house at Ewehill has been closed as unfit for human habitation.

In this township out of 164 houses there are only 8 provided with water closets.

Here is an ideal unit for the introduction of the water carriage system and a modern village will be created by its introduction.

Three houses at Ewehill are old and insanitary, and should be closed.

The Birtley Iron Co. are about to build thirty-two 5-roomed houses in this parish, the erection of which has commenced.

PELTON.

This large township shows many sanitary improvements, although much of the real improvements to the houses in West Pelton which were foreshadowed in my last year's Annual Report, have not been yet commenced. This is not due to any fault of the owners, but to the want of houses into which the displaced tenants could be placed. This difficulty will soon be overcome by houses now being erected, and one trusts that at the approach of summer a commencement will be made with the making of the back to back houses into through houses.

Seven houses have been closed during the year in this township, viz., at Kennedy's Buildings (1), Store Buildings (2), Green's Buildings (2), all at Middle Hold, and at Stella Farm (2), South Pelaw Colliery.

The chief improvements in the township are the following: houses generally repaired (39), drains constructed (45), drains repaired &c., (55), ash closets erected (34), privies abolished (72), ash closets repaired (23), backyards cemented (42), other repairs (30), and water closets provided (62), at the following places: Workmen's Club, Pelton, (1), Hylton Terrace (5), Wheldon's Terrace (12), Teasdale's Buildings (3), all at Pelton; Club Room (9), Hall's Buildings (11), Victoria Terrace (7), and Wesley Place (10), Pelton Fell; Edward Terrace, Newfield (2); and Green's Buildings (2), West Pelton. These closets have replaced closets on the conservancy system.

The back-to-back houses mentioned in my last year's report are still in the same condition, the owners having met with great opposition from the occupiers to remove during alterations. The owners of the Colliery are now erecting houses

into which the tenants proposed to be displaced may be housed, and as soon as these houses are ready for occupation it is to be hoped that no further opposition will be offered to remove by the tenants of the back-to-back houses.

There continues a marked scarcity of houses in this parish, and your Council's scheme to build over 100 houses will soon be commenced. Many more houses are required, and several should be closed.

The sewage disposal works for a part of this township are progressing slowly, and completion is within reasonable distance from this time.

Several streets in this township still require to be properly made, especially at the village of West Pelton.

PLAWSWORTH.

The rebuilding of the houses in the village of Nettlesworth continues, and 4 houses in Cross Row have been completed during the year. In addition 6 floors have been conereted, 4 back yards cemented, 2 water closets built, 5 ash closets erected, and 22 drains repaired or eonstruted.

URPETH.

In this township the Birtley Iron Co. have spent a considerable amount of money in cement footpaths at Urpeth Cross Rows (34 houses), and they are about to place similar paths in front of the houses as soon as the open channels are replaced by proper covered-in sewers, and the work is now in progress.

Several new houses have been ereeted at Urpeth Square by this Company. In addition, the following minor repairs have been effected in this township, houses generally repaired (14), improved water supplies (3), new drains (6), drains repaired (9).

USWORTH.

There has not been much work done in this township during the year.

At New Rows South 2 pairs of back-to-back houses have been made into 2 through houses, and the following have been repaired : Springwell Farm Cottages (2), Palmer's Terrae (1), Hall Terrace (1), Springwell Stone Cellars (1), Usworth village. Twenty-one houses have been closed during the year, viz., Mount Moor Cottage (1), Springwell ; Candy Bank (5), Usworth Village ; New Rows, New Washington (2) these were not closed, except as separate tenements ; Middle High Row (10), and The Square (3), Usworth Colliery.

There is room for many improvements at Usworth Colliery, such as the closing of the now occupied houses at the Square, Taylor's Row, and Middle High Row. Enclosed and enlarged yards at Penshaw View, and better streets are very necessary improvements.

The Council are now erecting 57 houses in this parish in close proximity to New Washington, and there is room for at least five times as many as soon as the Council cares to commence building operations.

In the parish at New Washington, 4 streets of 927 yards are just about completed.

WASHINGTON.

In this parish 5 houses have been closed, and three tenements have been abolished by adding their rooms to adjacent tenements. The houses closed are at Pit Lane Cottages (2), Brickyard (2), Spout Lane (1); Village Lane (1), and Railway View, Washington Station (2).

Twenty-eight privy ashpits have been abolished. Water closets have taken the place of privies in the places under-mentioned: Shaftoe Terrace (20), Speculation Place (4), Union Club (3) New Washington; Police Station (2), and Watson's Buildings (3), Washington; Bell Street (7), and Station Road (2), Washington Station.

Eden Terrace, 540 lineal yards, has now been properly made, and other 29 streets are to be commenced at an early date.

There are many ashpit privies to be abolished, and many more ash closets to be converted into water closets before this parish, with its many new houses, can assume an ordinary sanitary condition, but improvements are being made, and if they continue, especially in the addition to the very few water closets now in existence, a lessened infant death rate will be the township's reward.

There is no difficulty in this parish in conversion, since there is no question of insufficient sewage disposal works. A tidal river of large volume is there to receive the clarified sewage of all your riparian townships. The remarks I have made on this subject with reference to Washington applies equally to Barmston, Usworth, and Harraton.

Not many new houses have been built in this parish during the year.

The scarcity of houses continues in an acute degree, causing much overcrowding, and there does not appear to be any great desire on the part of the private speculator to risk his money in house property in this parish. If the people are to be supplied with houses, your Council must of a necessity increase the number of houses already erected by you.

WITTON GILBERT.

I have again to report that a considerable number of improvements have taken place in this parish, as represented by the following: roofs repaired (3), spouting repaired (4), floor cemented (8), yards cemented (38), privies abolished (41), ash closets provided (44), ash closets repaired (32), drains constructed or repaired (63).

The streets at Sacriston are still in the same unmade state as in previous reports, but the Surveyor has now instructions from your Council to commence with 41 of them. When these streets are properly made, a great boon will be conferred on the persons using them, and will save much dirt being carried into the houses.

The following is a summary of Sanitary Improvements accomplished during the year 1913.

A very large number of houses have been generally repaired, 169 water closets built, 169 ash closets erected, 11 ash closets, 218 ashpit privies abolished. 213 yards cemented, 62 houses provided with enclosed back yards, 4,798 lineal yards of private streets have been properly made either in ordinary macadam or tar macadam; 73 houses have been closed, of which 40 were closed voluntarily by the owners, and 33 were closed under the provisions of the Housing, &c., Act, 1909.

DAIRIES AND COWSHEDS.

There are 99 cowkeepers and 10 purveyors of milk registered in the district. The cowsheds are regularly visited, and insanitary conditions observed and remedied. Generally the cowsheds are in fair sanitary condition. Fifteen notices have been served to cleanse or whitewash, to provide new drains (2), all of which have been complied with. One dairy floor was laid in cement.

The need of absolute cleanliness amongst dairymen is very difficult to instil into the minds of this class of workers. It appears that to them any rough and tumble method of milking cows is quite sufficient. There does not appear to be any idea that milk is a food, easily contaminated, and that this contamination cannot in its worst elements be seen by the unaided eye.

The suggestion of grooming cows is received with something akin to amusement by the majority of cowkeepers, the cleansing of byres is something of recent date, the cleansing with water of cows udders is looked upon as an approach to sacrilege, and injurious to the health of the cow. Some condescend to rub the udder with a dry cloth, often dirty, but having conceded that innovation, further cleanliness there, is not next to godliness.

Legislation enforcing cleanliness in milk production and its freedom from dirt and diminution of injurious organisms is yet something of the future. One hears of milk bills to be introduced into Parliament year after year. They come with the spring and wither in the autumn, and impure milk continues to hold the field. When a local authority attempts to ascertain the presence or absence of highly injurious organisms in the milk produced in their district, the auditor promptly surcharges that authority for carrying out such a modern attempt to preserve the health of the people committed to their charge, and their laudable desire of betterment comes to a premature and ignoble end.

COMMON LODGING HOUSES.

There is only one lodging house in your district, which has been frequently visited, and found to be well kept.

SLAUGHTER HOUSES.

Systematic inspection of slaughter houses is not carried out, though they are frequently visited by myself and inspectors of nuisances when opportunity occurs.

There are in the district 36 slaughter houses, 36 shops in which meat killed in the slaughter houses enumerated is sold, and 16 shops in which is sold meat, slaughtered outside the district (chiefly frozen meat).

POLLUTION OF STREAMS.

As I said in my last year's report, the pollution of streams is not serious, and what occurs, though a legal pollution, is not an injurious pollution, nor one which in any case constitutes a nuisance.

The pollutions I enumerated last year still continue, but the removal of these pollutions is engaging the attention of your Council, and the removal of them may be attained within a reasonable time.

In all cases, removal is to be very costly, and in some cases difficult, but I hope in the future those legal pollutions will disappear.

The streams polluted are in most cases so charged with colliery pumpings as to render them unfit to sustain any aquatic life, in other cases the quantity of sewage entering the stream is so infinitesimal as to be a negligible quantity.

Certain sewage purification works are now in progress to treat the largest pollutions, such as those from the Pelton and Witton Gilbert districts, and negotiations are proceeding for the purchase of land for works to treat the sewage from the Beamish area.

As to the destiny of the sewage from the parishes of Washington, Usworth, Barmston, and part of Harraton, see my remarks (page 44) of my report for last year.

CLOSET ACCOMMODATION IN THE DISTRICT.

The following table gives the closet accommodation in your several townships. The term "other occupied buildings" include schools, churches, workshops, factories, and places of amusement.

That there is to be a marked increase in the the water closet is now certain, and your Council in November unanimously adopted a resolution that in the future all new houses must have water closet accommodation provided there were a sufficient water supply, and sewers of sufficient size to carry away the contents of the closets.

The water closet is clean, or should be so, convenient, and decidedly superior to any other form of excrement disposal. The misuse of the water closet is highly over-estimated, and the number of nuisances arising therefrom is under that arising from the other forms of closets.

The chief objection urged by owners against the water closet is that it is frequently a nuisance, that it is often out of order by improper articles put into it, that it freezes frequently, that the expense of its upkeep is excessive when compared with other forms of closets, and that the users are improperly educated as to its use and protection.

I am afraid those arguments are far from convincing to those who know the real facts. Let a person who has been used all his life to a privy have the opportunity of using a water closet for a few weeks, and his story will be that he is disgusted with a privy, that it is only force which makes him use it, and that the foul smell emanating from it is unbearable.

During the past year there were in your district 1948 water closets producing 21 nuisances, or a percentage of 1.08; 9,198 ash closets with 187 nuisances, or a percentage of 2.08; and 2,940 privies with 237 nuisances, a percentage of 8.06.

These figures prove that the water closet causes only one-half the number of nuisances produced by the ash closet, and one-seventh of the nuisances produced by the privy ashpit.

Cases of freezing are few, and even then, a bucket of water cleans out the basin and the closet is perfectly ready for use.

The number of nuisances in water closet to be dealt with are no greater than those in a large town, and no one would think of reverting to the privy ashpit when a closet is once used.

Township.	Number of Dwelling Houses and other occupied buildings.	Closet Accommodation.				Refuse.	
		W.C.	E.C.	A.C.	Privs.	Ash-pits.	Ash-bins.
Barnston	103	13	..	95	10	..	..
Biddick, South ...	27	10	..	16	5	..	..
Birtley	1760	370	..	1185	327	309	65
Burnmoor	264	26	..	98	156	..	..
Cocken	35	3	..	25	6	4	..
Edmondsley	479	21	..	291	155	98	4
Harraton	675	83	..	537	105	..	..
Lambton	31	4	..	16	11	..	..
Lamesley	1412	224	..	833	399	241	33
Lumley Great	470	26	5	297	106	56	3
Lumley Little	362	29	..	329	36	..	..
Ouston	176	21	..	147	25	15	..
Pelton	1802	309	..	1174	270	224	96
Plawsworth	299	17	..	112	145	74	6
Urpeth	763	73	..	410	304	242	4
Usworth.....	1522	188	..	1233	161	..	..
Waldridge	294	..	..	275	23	11	..
Washington.....	1624	351	..	1118	215	..	..
Witton Gilbert ...	1654	180	27	1007	481	286	53
Total	13752	1948	32	9198	2940	1560	264

UNHEALTHY DWELLINGS.

That there are a great number of unhealthy dwellings in your district is so well known to you all that it is futile on my part to do anything more than again record the fact. That these unhealthy houses are disappearing at a fairly rapid rate, or are being made as sanitary as an old house can be made, is shown by the appendices detailing the amount of really good work accomplished by your Council during the year under review. Not only are there many bad houses, but the number of houses is far too small for the number of people wishing

to live and work in your district. It is no uncommon thing to hear of scores of men walking two, four, or even more miles to and from their work daily. This excessive labour before and after the ordinary day's work is injurious in the long run to the willing worker, who, when pitted against a man who lives near his work, desires to show at the end of the day an equal amount of work done as his more favoured rival.

To remedy this state of scarcity of houses, one looks to the private speculator to supply the demand. If he fails, and he has failed in your district, to a great extent, to cope with this demand for houses, it falls on your Council to supply the remedy.

Your Council is fully alive to this duty, and has several schemes on hand for the building of houses.

Schemes for 57 houses in Usworth, over 200 in Pelton, 100 in Harraton, and a further number in Washington and Usworth Parishes are now engaging the attention of your Council.

The townships where the need of houses is most felt are Usworth, Washington, Harraton, Pelton, Urpeth, and probably Witton Gilbert.

These townships would easily absorb 1,000 houses, and I doubt if that would satisfy the demand.

The following table gives the number of houses closed in each township during the year, and the number built and occupied during the same period.

TOWNSHIP.	NO. OF HOUSES BUILT & OCCUPIED.		NO. OF HOUSES CLOSED.
Barmston .....	..	....	..
Biddick, South	1	....	..
Birtley	33	....	2
Burnmoor .....	..	....	2
Cocken .....	..	....	..
Edmondsley	6	....	3
Harraton	24	....	22
Lambton .....	..	....	..
Lamesley	21	....	6
Lumley Great	19	....	16
Lumley Little	8	....	..
Ouston .....	..	....	1
Pelton	8	....	10
Plawsworth	7	....	2
Urpeth	9	....	4
Usworth.....	13	....	21
Waldridge .....	..	....	..
Washington.....	8	....	8
Witton Gilbert	28	....	4
	<hr/> 185		<hr/> 101

It is obvious from the table just given that overcrowding is not lessening in your district, or if there be no overcrowding there must be an extensive emigration from your area, but there is no proof of such outgoing of the people, who are evidently not provided with houses.

The excess of births over deaths is 1207, which on an average of 4.99 persons per house (the average of your district) would require 242 houses to properly house them, yet there were added only 84 houses during the year.

If overcrowding has not increased, then emigration has been active, but as I have no information on this subject I am unable to give any opinion as to whether this failure to increase the number of houses in proportion to the increase of births over deaths is causing overcrowding or not. One knows, however, that overcrowding does exist, and that probably in its worst forms, viz., more than one family in one tenement.

THE ISOLATION HOSPITAL.

Up to the present year the Isolation Hospital was under the jurisdiction of your Council, but on the 21st August, 1913, a Provisional Order was issued by the Local Government Board constituting the Rural District and Urban District of Chester-le-Street into a joint area for Isolation Hospital purposes, and forming a joint board, consisting of 12 members elected by the Rural District Council, and 2 members elected by the Urban District Council, to be the governing body of the Hospital or Hospitals serving the united areas.

Though the order is dated the 21st August, the Joint Board did not really assume control until the middle of November, and this year I have treated the Hospital as if it had been under the control of the Rural District Council for the whole year.

During the year 234 patients have been admitted, as compared with 139 last year, and with 110 the previous year. Of these, 155 were from the Rural District and 79 from the Urban District.

Of the 155 admitted from the Rural District 114 were admitted as suffering from Scarlet Fever, 20 were admitted as suffering from Diphtheria, the diagnosis of all being correct, and 21 were admitted as suffering from Enteric Fever. In four of these the patients were found to be suffering from Phthisis, Pneumonia, Meningitis and Influenza respectively.

Of the Urban cases, all were found to be suffering from Scarlet Fever, and all were admitted as Scarlet Fever cases save one, which was sent in as a case of Diphtheria.

Of all the cases of Scarlet Fever notified in your district, there were 38.0 per cent. admitted to the Hospital, as compared with 41.8 per cent. last year, and with 23.0 per cent. during the previous year.

Of Enteric Fever notified there were admitted 68.0 per cent. as compared with 33.3 per cent. last year, and with 68.2 per cent. during the previous year. Of the cases of Diphtheria notified there were 32.8 per cent. admitted, as compared with 38.4 per cent. last year, and with 33.7 per cent. during the previous year.

Taking these three diseases (in your district) as one unit, there were admitted 40.1 per cent. as compared with 41.0 per cent. last year, and with 27.7 per cent. during the previous year.

Three patients died from Searlet Fever, or a ease mortality of 1.55 per cent. ; 2 died from Diphtheria, or a case mortality of 10.0 per cent. ; 2 died from Enteric Fever, or a case mortality of 11.76 per cent. ; one died from Phthisis, and one died from Meningitis. The case mortality of all admissions was 3.84 per cent., or deducting the deaths from Phthisis and Meningitis, a ease mortality of only 3.01 per cent., as compared with a case mortality of 5.75 per cent. last year.

If one compares the result of Hospital treatment with home treatment respecting Scarlet Fever, Enteric Fever, and Diphtheria, the results are as follows :

	HOSPITAL TREAT- MENT, DEATHS PER CENT.		HOME TREAT- MENT, DEATHS PER CENT.
Scarlet Fever	1.55	..	1.09
Enteric Fever	11.76	..	25.00
Diphtheria.....	10.00	..	24.39
	<hr/>		<hr/>
Total	3.01	..	6.06

The type in several cases of Scarlet Fever was more severe than in former years, and in Diphtheria there were more cases of the laryngeal form than ever I have seen in one year.

Six tracheotomies were performed, with a result of 66.6 per cent. of recoveries. The remaining 2 cases were moribund before admission, and lived only a few hours in the Hospital.

For Scarlet Fever patients the average number of days resident were 57.21, as compared with 60.2 days last year, and with 53.17 days the previous year ; for Enteric Fever the average number of days resident were 71.30, as compared

with 71.40 days last year, and with 61.92 days during the previous year; for Diphtheria the average number of days resident were 49.27, as compared with 53.5 days last year, and with 39.82 days residence during 1912.

The average number of patients daily resident throughout the year has been 33.58, as compared with 21.61 last year.

		AVERAGE NUMBER OF PATIENTS DAILY RESIDENT.
First Quarter		20.45
Second Quarter		34.68
Third Quarter		27.48
Fourth Quarter		51.33

The following table gives the number of cases admitted to the Hospital since July, 1895, and other details:—

YEAR.	NO. OF PATIENTS ADMITTED.		AVERAGE NO. DAILY RESIDENT.		NO. OF DEATHS.		PERCENTAGE OF DEATHS TO ADMISSIONS.
1895	37	....	9.00	....	0	.... 0.00
1896	121	....	15.30	....	3	.... 2.48
1897	53	....	9.58	....	2	.... 3.77
1898	104	....	14.17	....	3	.... 2.88
1899	136	....	20.22	....	10	.... 7.35
1900	116	....	18.35	....	4	.... 3.44
1901	115	....	16.05	....	8	.... 6.97
1902	104	....	13.65	....	8	.... 7.69
1903	133	....	17.41	....	6	.... 4.51
1904	56	....	5.25	....	2	.... 3.57
1905	1	....	0.00	....	0	.... 0.00
1906	53	....	6.76	....	2	.... 3.92
1907	43	....	5.70	....	2	.... 4.65
1908	124	....	18.23	....	11	.... 8.87
1909	123	....	22.80	....	6	.... 4.87
1910	70	....	12.35	....	5	.... 7.01
1911	110	....	13.64	....	11	.... 10.00
1912	139	....	21.61	....	8	.... 5.75
1913	234	....	33.58	....	9	.... 3.84
		1872			14.40	100	5.34

On the last day of the year there remained under treatment 50 cases of Searlet Fever, 5 cases of Enteric and 5 cases of Diphtheria.

During the last quarter of the year your Hospital accommodation has been severely taxed, and cases have either been delayed admission or refused.

The Staff was inadequate and has been temporarily increased by two nurses and permanently by one maid.

A new pavilion of 12 beds on the cubicle system was erected during the year, and opened in November. Its presence has been of very great advantage in separating doubtful cases of illness, and in treating Diphtheria, especially tracheotomies, though before its erection I treated Diphtheria and Enterics in the same wards without any cross infection.

The ventilation of this pavilion is by natural means, and on theoretical grounds I consider it absolutely wrong. In muggy days, when the outside air is practically still, ventilation of the cubicles depends on the difference between the temperatures of the outside and inside air. In windy weather if the windows are opened, and even when they are not open, the wind blows the air from the western cubicles into the eastern, and of course the germs of a disease treated in the western cubicles must be blown into the eastern. Up to the end of the year there was no case of cross infection, but there were only treated cases of Diphtheria and Enteric, which with ordinary separation, do not give rise to cross infection. How long this immunity from cross infection will continue will be best tested when there is a necessity to place Scarlets in this pavilion.

During the year 2 cases of cross infection took place, two Diphtherias being infected with Scarlet Fever. This accident took place during the building operations, when everything was out of joint, and when it was difficult for the nurses to keep all the children under efficient supervision properly apart in their play grounds.

The inadequacy of the staff has engaged the attention of the Hospital Board, and they are now considering the necessity for increasing the staff, enlarging the administrative block, making the roads about the Hospital in a proper manner, and enlarging the laundry.

FACTORY AND WORKSHOPS.

The Factories, Workshops, and Workplaces have been regularly inspected during the year. As a rule these places were found in good sanitary condition. A few notices for minor faults were served and immediately complied with.

There are really no workshops of any size in your district, and, so far as I know, there are no outworkers.

TABLE I.

CHESTER-LE-STREET RURAL DISTRICT.

Vital Statistics of Whole District during 1913 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Net Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908.....	74,916	2,809	2,809	37.49	1,311	17.48	....	14	497	176.5	1,325	17.67
1909.....	62,739	2,361	2,361	37.63	908	14.45	....	35	332	140.6	942	15.01
1910.....	63,869	2,341	2,341	36.65	914	14.32	....	35	336	144.8	949	14.85
1911.....	63,882	2,189	2,189	34.26	994	15.56	12	62	413	188.6	1,044	16.34
1912.....	65,879	2,211	2,221	33.71	822	12.47	6	69	268	120.6	885	13.43
1913.....	66,648	2,164	2,170	32.54	880	13.20	12	77	296	136.4	945	14.17

Area of District in acres
(exclusive of area
covered by water).

32,429

Total population at all ages, 63,882

Number of inhabited houses, 12,798

Average number of persons per house 4.99

At Census of
1911.

TABLE II.
CHESTER-LE-STREET RURAL DISTRICT.
Cases of Infectious Diseases notified during the Year 1913.

[illegible]

TABLE III.

CHESTER-LE-STREET RURAL DISTRICT.

Causes of, and Ages at Death during the Year 1913.

CAUSES OF DEATH.		NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.								DEATHS IN LOCALITIES AT ALL AGES.—(TOWNSHIPS).																PUBLIC INSTITUTIONS.						
		At all Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	Barnston.	Biddick, South.	Birtley.	Burnmoor.	Cocken.	Edmondaley.	Harraton.	Lambton.	Lamesley.	Lunley, Great.	Lunley, Little.	Ouston.	Pelton.	Plawsworth.	Urpeth.	Usworth.	Waldridge.	Washington.	Witton Gilbert.	Dame Margaret's Home.	Earl's House Industrial School.	Sanatorium.
All causes	Certified	946	294	90	57	41	30	98	153	183	6	.....	133	13	6	38	33	3	87	30	21	12	135	28	56	100	15	105	122	.....	.....	3
	Uncertified	11	2	2	.....	1	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	2	.....	2	1	.....	1	3	.....	.....	.....
Enteric Fever		4	.....	.....	2	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....
Typhus .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Small Pox .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Measles		41	11	20	9	1	.....	.....	.....	.....	.....	9	.....	.....	5	2	.....	.....	1	.....	.....	.....	8	4	1	.....	2	1	8	.....	.....	.....
Scarlet Fever		4	.....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Whooping Cough		11	.....	5	5	1	.....	.....	.....	.....	.....	8	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Diphtheria and Croup		12	.....	2	5	3	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2	.....	1	1	.....	4	3	.....	.....	.....	.....
Influenza		7	.....	1	.....	1	.....	.....	4	1	.....	.....	.....	.....	1	2	1	1	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....
Erysipelas.....		1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Phthisis (Pulmonary Tuberculosis)		50	.....	.....	.....	6	6	24	14	.....	.....	9	2	.....	3	2	.....	4	3	1	2	8	.....	3	4	.....	3	3	.....	.....	.....	3
Tuberculous Meningitis		17	3	4	4	6	.....	.....	.....	.....	.....	3	.....	.....	.....	1	.....	1	.....	.....	.....	4	.....	2	1	.....	2	3	.....	.....	.....	.....
Other Tuberculous Diseases		37	9	7	7	5	3	5	1	.....	1	.....	1	.....	1	1	1	.....	4	2	2	.....	5	1	2	4	.....	10	2	.....	.....	.....
Cancer, malignant disease		40	.....	.....	.....	.....	.....	8	21	11	.....	4	1	.....	1	2	1	8	.....	1	.....	4	.....	4	2	1	2	9	.....	.....	.....	.....
Polio-Myelitis .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meningitis.....		12	6	1	3	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	4	.....	1	3	.....	.....	2	.....	.....	.....	.....
Cerebro-Spinal Meningitis .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glanders .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anthrax .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lead Poisoning .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rheumatic Fever		3	.....	.....	.....	.....	2	.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Organic Heart Disease		70	1	1	.....	.....	2	8	27	31	1	.....	11	.....	.....	2	.....	1	9	2	3	1	8	.....	6	5	2	7	12	.....	.....	.....
Bronchitis.....		56	19	5	2	.....	.....	2	13	15	.....	6	.....	1	3	2	.....	7	4	.....	2	8	1	4	6	1	9	2	.....	.....	.....	.....
Pneumonia (all forms)		78	22	25	6	4	2	8	4	7	.....	10	.....	.....	3	3	.....	6	2	1	.....	7	4	6	14	1	7	14	.....	.....	.....	.....
Other Diseases of Respiratory Organs ...		6	1	2	1	.....	.....	.....	1	1	.....	2	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Diarrhoea and Enteritis		66	48	11	1	.....	.....	2	1	3	1	.....	4	1	.....	4	3	.....	6	5	3	.....	10	8	5	5	2	5	4	.....	.....	.....
Appendicitis and Typhlitis .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alcoholism .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cirrhosis of Liver		4	.....	.....	.....	.....	.....	.....	3	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
Nephritis and Bright's Disease		28	.....	.....	.....	1	.....	4	14	9	.....	5	1	.....	.....	.....	.....	7	.....	1	.....	1	2	1	5	1	3	1	.....	.....	.....	.....
Puerperal Fever		1	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other accidents and diseases of Preg- nancy and Parturition		5	.....	.....	.....	.....	3	2	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
Congenital Debility and Malformation, including Premature Birth		149	147	1	1	.....	.....	.....	.....	.....	.....	18	1	3	6	9	.....	13	4	3	3	35	2	7	20	2	13	10	.....	.....	.....	.....
Violent Deaths, excluding Suicide		45	2	.....	4	7	4	12	11	5	.....	10	3	.....	2	.....	.....	2	2	2	1	2	1	1	7	.....	6	6	.....	.....	.....	.....
Suicide		8	.....	.....	.....	.....	1	1	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	5	.....	.....	1	.....	.....	.....	.....
Other Defined Diseases		140	17	3	2	4	6	17	39	52	3	.....	20	2	1	3	4	.....	12	3	3	2	15	1	11	14	2	20	24	.....	.....	.....
Diseases ill-defined or unknown		62	9	4	3	.....	.....	.....	4	42	.....	7	1	.....	2	.....	.....	4	3	.....	1	10	3	3	3	.....	10	15	.....	.....	.....	.....
All causes		957	296	92	57	42	30	98	159	183	6	.....	133	13	6	38	33	3	87	31	21	13	137	28	58	101	15	106	125	.....	.....	3

TABLE IV.

CHESTER-LE-STREET RURAL DISTRICT.

INFANT MORTALITY, 1913.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under One Year.
All Causes. { Certified	97	22	19	7	145	41	50	33	25	294
Causes. { Uncertified				1	1	1				2
{ Small Pox										
{ Chicken Pox										
{ Measles	1				1		1	5	4	11
{ Scarlet Fever										
{ Diphtheria and Croup										
{ Whooping Cough										
{ Diarrhea			1	1	2	9	15	9	9	44
{ Enteritis							4			4
{ Tuberculous Meningitis							1	2		3
{ Abdominal Tuberculosis							1	3		4
{ Other Tuberculous Diseases							1	1	2	4
{ Congenital Malformations	5	1	3	1	10	2	3			15
{ Premature Birth	51	9	7		67	2	1			70
{ Atrophy, Debility and Marasmus	22	6	2	3	33	13	9	4		59
{ Atelectasis	7				7					7
{ Injury at Birth	2				2					2
{ Erysipelas						1				1
{ Syphilis										
{ Rickets										
{ Meningitis (not Tuberculous)							4	1	1	6
{ Convulsions	1		1	1	3	3	1			7
{ Gastritis						1		1	1	3
{ Laryngitis							1			1
{ Bronchitis		3	3	2	8	4	1	5	1	19
{ Pneumonia (all forms)		1			1	7	7	1	6	22
{ Suffocation, overlying										
{ Other Causes	8	2	2		12			1	1	14
	97	22	19	8	146	42	50	33	25	296

Nett Births in the year. { legitimate .. 2,076
 { illegitimate .. 88

Nett Deaths in the year of { legitimate infants .. 276
 { illegitimate infants .. 20



CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

Totals

TABLE VI.
SCARLET FEVER DURING 1913.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR

LOCALITIES.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barnston											1		1
Biddick, South													
Birtley	1			5	2	2		1				2	13
Burnmoor	1	2	2	1				1	1		3		11
Cocken													
Edmondsley	1	1	1	3	1			4			2		13
Harraton	2	1		1	1	1			1			2	9
Lambton													
Lamesley	2		1	1	1	1	1	1	3	8	4	1	24
Lumley, Great	1			2	8	1			2	2	2	2	20
Lumley, Little													
Ouston		1									1	5	7
Pelton			3		3	1	1	1	4	11	11	25	60
Plawsworth										1	1		2
Urpeth	2			2	1	1				1	6	3	16
Usworth	3	1	2	2	2	2			11	6		4	33
Waldridge		1		4	1	1	1	6					14
Washington	5	3	3	1	2				5	6	15	6	46
Witton Gilbert	2	4	2	2	2	1	4			6	7	1	31
Dame Margaret's Home													
Earl's House Industrial School													
Totals	20	14	14	24	24	11	7	14	27	41	53	51	300

TABLE VII.

ENTERIC FEVER DURING 1913.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston
Biddick, South
Birtley	1	...	...	...	...	...	...	...	...	...	...	1
Burnmoor	1	...	...	...	...	1
Cocken
Edmondsley
Harraton	1	...	...	...	...	...	1	1	...	3
Lambton
Lamesley	3	...	...	...	...	...	...	...	2	1	6
Lumley, Great
Lumley, Little	1	...	...	...	...	...	1
Ouston	1	1
Pelton...	1	...	...	1	...	...	...	...	...	...	...	2
Plawsworth
Urpeth	1	...	1	...	...	...	...	...	2
Usworth	1	...	...	1	...	...	...	2
Waldridge
Washington	5	2	2	...	9
Witton Gilbert	...	1	...	...	...	...	...	...	...	...	...	...	1
Dame Margaret's Home ... {
Earl's House
Industrial School {
Totals.....	2	1	3	1	2	1	2	1	6	3	5	2	29

TABLE VIII.
DIPHTHERIA DURING 1913.
CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston													
Biddick, South													
Birtley	1										1		2
Burnmoor													
Cocken													
Edmondsley													
Harraton								1			1		2
Lambton													
Lamesley					1	1	1	1	5			1	10
Lumley, Great	1							1					2
Lumley, 'Little													
Ouston													
Pelton						1	2	1	1	2	4	1	12
Plawsworth					2								2
Urpeth		1	1			1			1	1			5
Usworth		1									2	1	4
Waldrige													
Washington			1				1		3		3		8
Witton Gilbert			1				1	2			4	6	14
Dame Margaret's Home													
Earl's House													
Industrial School													
Totals	2	2	3		3	3	5	6	10	3	15	9	61

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

[illegible]

TABLE X
ERYSIPELAS DURING 1913.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barnston													
Biddick, South													
Birtley	1						1	1					3
Burnmoor		1		1								1	3
Cocken													
Edmondsley												1	1
Harraton	1							1				4	6
Lambton.....													
Lamesley				3		1			2	1	1	2	10
Lumley, Great													
Lumley, Little												1	1
Ouston	1												1
Pelton		2	2	2	1					1	2	1	11
Plawsworth													
Urpeth					2				2	1			5
Usworth	1	4			3	1		1	5	2	3	4	24
Waldridge.....													
Washington	2			1		1							4
Witton Gilbert	2					1						1	4
Damo Margaret's Home													
Earl's House													
Industrial School													
Totals	8	7	2	7	6	4	1	3	9	5	6	15	73

TABLE XI.

Birth-Rate, General Death Rate, Zymotic Death Rate, Diarrhœal Death Rate, and Infantile Death Rate in each Township during 1913.

TOWNSHIP.	Birth Rate per 1000.	General Death Rate per 1000.	Zymotic Death Rate per 1000.	Diarrhœal Death Rate per 1000.	Infantile Death Rate per 1000 born.
Barinston	30.49	12.19	2.01	2.01	133.3
Biddick, South					
Birtley	34.60	15.49	2.56	0.46	127.9
Burnmoor	21.09	9.78	0.75	0.75	35.7
Cocken	42.10	31.57	.....	.....	375.0
Edmondsley	35.62	16.71	4.84	1.31	172.8
Harraton	30.00	9.89	1.49	0.89	120.0
Lambton	22.38	22.38	.....	.....	.....
Lamesley	26.33	12.94	1.19	0.89	113.0
Lumley, Great	40.23	13.85	2.68	2.23	155.5
Lumley, Little	22.42	10.23	1.46	1.46	108.7
Ouston	24.80	12.89	.....	.....	140.0
Pelton	39.89	16.61	2.66	1.21	142.8
Plawsworth	41.51	20.38	9.46	5.60	175.4
Urpeth	29.65	16.53	1.99	1.42	163.4
Usworth	32.09	12.56	0.74	0.62	124.0
Waldridge	23.91	11.21	2.98	1.49	187.5
Washington	34.73	13.01	1.47	0.61	120.1
Witton Gilbert	30.61	16.56	2.25	0.53	164.5

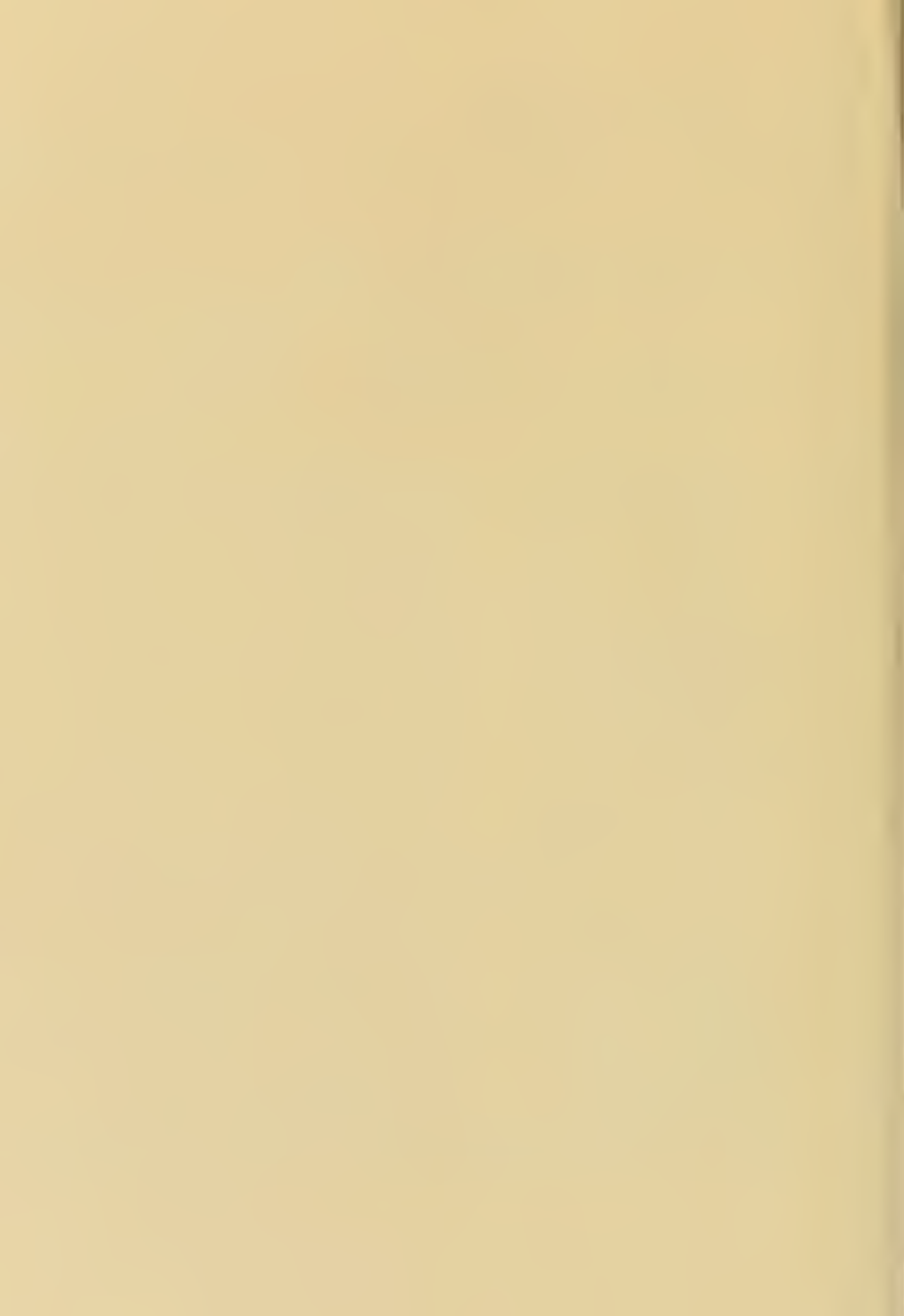
TABLE XII.
POPULATION OF THE SEVERAL TOWNSHIPS IN
THE DISTRICT.

ESTIMATED TO THE MIDDLE OF THE YEAR 1913.

TOWNSHIPS.	1911.			1912.	1913.			
	Number of In- habited Houses.	Popu- lation.	Average per House.		Number of In- habited Houses.	Popu- lation.	Increase. As compared with 1912.	Decrease.
Barnston	100	492	4.92	502	100	492	.....	10
Biddick, South.....	13	57	4.38	87	23	100	13	.....
Birtley	1667	8409	5.04	8384	1703	8583	199	.....
Burnmoor	251	1320	5.25	1356	253	1328	.....	28
Cocken	35	190	5.42	190	35	190	.....	.....
Edmondsley	456	2223	4.87	2223	467	2274	51	.....
Harraton	657	3400	5.17	3433	645	3334	.....	100
Lambton.....	29	130	4.48	134	30	134	.....	.....
Lamesley	1297	6370	4.91	6505	1369	6721	216	.....
Lumley, Great	439	2177	4.95	2217	452	2237	20	.....
Lumley, Little	216	1239	5.73	1862	358	2051	189	.....
Ouston	154	942	6.11	1008	165	1008	.....	.....
Pelton	1722	8118	4.71	8407	1751	8247	.....	160
Plawsworth	282	1333	4.72	1373	291	1373	.....	.....
Urpeth	702	3320	4.72	3365	743	3507	142	.....
Usworth	1501	7986	5.32	8097	1511	8038	.....	59
Waldridge.....	268	1256	4.68	1324	286	1338	14	.....
Washington	1504	7821	5.20	8055	1567	8148	93	.....
Witton Gilbert.....	1505	7099	4.71	7357	1602	7545	188	.....
Totals	12,798	63,882	.....	65,879	14,351	66,648	1,125	357

TABLE XIII.
CHESTER-LE-STREET RURAL DISTRICT.
Cases of Enteric Fever during 1913.

No.	Date of Notification	Name.	Age.	Sex.	Locality.	Probable Cause.	Probable connection between one case and any other.	Probable connection between the cause of one case and any other.	Water Supply Source.	Drainage.	Method of Excrement Disposal.	Manner in which Scavenging is performed.	Remarks.	Termination.	No.
1	13th Jan.	J. P.	4	M.	Sacriston	Unascertainable	None	None	Upland	Sewer	Ash-closet ..	Good .....	.....	Recovery ..	1
2	29th Jan.	M. E. M.	14	F.	Grange Villa	"	"	"	"	"	"	Fair .....	.....	" .....	2
3	22nd Feb.	C. P.	34	M.	Birtley	"	"	"	Newcastle & Gateshead	"	"	Good	Not Enteric	Fatal	3
4	18th Mar.	J. R.	16	M.	Team Colliery	"	"	"	"	"	Ashpit privy ..	" .....	.....	Recovery ..	4
5	20th ..	J. F.	19	M.	Chowdene	"	"	No. 6 .....	" .....	" .....	" .....	" .....	.....	" .....	5
6	28th ..	J. F.	7	M.	"	"	"	No. 5 .....	" .....	" .....	" .....	" .....	.....	" .....	6
7	17th ..	A. B.	3	F.	Fatfield	"	"	None .....	" .....	" .....	" .....	" .....	.....	" .....	7
8	2nd May	R. A.	26	M.	Grange Villa	"	"	"	Weardale & Consett ..	"	"	Fair	Case of Pulmonary Phthisis	Fatal	8
9	25th ..	J. A.	50	M.	Twizell .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	.....	Recovery ..	9
10	23rd June	E. C.	36	M.	New Washington ..	"	"	"	Newcastle & Gateshead	"	Ash-closet ..	" .....	.....	" .....	10
11	11th July	J. L.	4	M.	Fence Houses	"	"	"	Weardale and Consett ..	"	"	"	Case of Pneumonia	"	11
12	22nd ..	E. H.	23	F.	Beamish	"	"	"	"	"	"	"	Septic Meningitis	Fatal	12
13	21st Aug.	J. F.	38	M.	Burnmoor	"	"	"	Deep Well or New. & G.	" .....	" .....	" .....	.....	Recovery ..	13
14	3rd Sept.	T. S.	50	M.	Washington Station	"	"	"	Sunderland Deep Well	" .....	" .....	" .....	.....	" .....	14
15	10th ..	C. S.	10	M.	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	.....	" .....	15
16	12th ..	W. F.	17	M.	Havannah	"	"	"	Newcastle & Gateshead	" .....	" .....	" .....	.....	" .....	16
17	13th ..	M. R.	4	F.	Washington Village..	"	"	"	Sunderland .....	" .....	" .....	" .....	.....	" .....	17
18	14th ..	R. H.	9	M.	New Washington ..	" .....	" .....	" .....	" .....	" .....	" .....	" .....	.....	" .....	18
19	18th ..	E. J. McG.	25	F.	Washington Village ..	" .....	" .....	" .....	" .....	" .....	" .....	" .....	.....	" .....	19
20	22nd ..	W. M.	6	M.	New Washington ..	"	"	"	Newcastle & Gateshead	"	"	"	Case of Tuberculosis	"	20
21	6th Oct.	A. P.	5	F.	Washington Station ..	"	Case 24	"	Sunderland .....	" .....	" .....	" .....	.....	Fatal	21
22	23rd ..	M. J. F.	6	F.	Fatfield	"	None	"	Herrington .....	" .....	" .....	" .....	.....	Recovery ..	22
23	24th ..	M. N.	17	F.	Washington Colliery ..	"	"	"	Sunderland .....	" .....	" .....	" .....	.....	Fatal	23
24	4th Nov.	A. P.	5	F.	Washington Station ..	"	Case 21 .....	" .....	" .....	" .....	" .....	" .....	.....	Recovery ..	24
25	8th ..	R. L.	46	M.	Eighton Banks	"	None	"	Newcastle & Gateshead	" .....	" .....	" .....	.....	" .....	25
26	19th ..	R. L.	4	M.	"	"	Case 25 .....	" .....	" .....	" .....	" .....	" .....	.....	" .....	26
27	22nd ..	W. M.	17	M.	Fatfield	"	None	"	Herrington	"	"	"	Case of Influenza	"	27
28	" ..	J. P.	8	M.	Washington Station ..	"	Case 21	Case 25	Sunderland .....	" .....	" .....	" .....	.....	" .....	28
29	13th Dec.	M. S.	18	F.	Streetgate	"	None	None	Weardale and Consett ..	"	Ashpit privy ..	" .....	.....	" .....	29



APPENDIX A.

SUMMARY OF INSPECTIONS under the provisions of the Housing and Town Planning Act, of 1909, made during 1913, with the results accruing from such and previous Inspections.

TOWNSHIP.	Number of dwelling houses, which being unfit for human habitation, have been voluntarily closed by the owners.	Number of dwelling houses inspected for the purposes of Section 17 of the Act of 1909.	The number of dwelling houses which, on inspection, were considered in a state so dangerous, or injurious to health, as to be unfit for human habitation.	The number of representations made to the Local Authority with a view to the making of Closing Orders.	The number of Closing Orders made.	The number of houses closed by such Orders.	The number of dwelling houses the defects in which were remedied without the making of Closing Orders.	The number of dwelling houses which after the making of Closing Orders, were put into a fit state for human habitation, and the general character of the defects found to exist.
Birtley	1	2	2	2	1	1	1	
Burnmoor	2	8	7	..	..	..	..
Edmondsley	3	2	..	..	..	..	..
Harraton	16	1	1	..	6	6	13	
Lamesley	2	56	5	2	1	4	6	
Lumley, Great ...	16	79	48	4	4	..	16	
Ouston .....	..	4	4	1	1	1	..	
Pelton	7	31	0	6	6	3	12	
Plawsworth	2	15	14	..	..	..	4	
Urpeth .....	..	4	1	..	..	4	..	
Usworth	7	29	7	..	..	14	6	
Washington	8	92	52	..	..	..	21	
Witton Gilbert ...	4	..	..	..	..	..	3	
TOTAL	68	323	141	15	19	33	82	

APPENDIX B.

TABULAR STATEMENT OF INSPECTIONS, &c.,
made by Mr. GEORGE B. BROWN, Sanitary Inspector of the
Birtley Sub-Division, during the year 1913.

Townships—Birtley, Lamesley, Ouston and Urpeth.

Bakehouses	10
Common Lodging-houses	15
Cowsheds	57
Dairies and Milkshops	7
Domestic Workshops.....	..
Factories and Workshops	64
Fish and Fruit Shops	2
Houses <i>re</i> Infectious Diseases .....	..
,, <i>re</i> Nuisanees or Defeets	1154
,, <i>re</i> Housing Record	66
Ice Cream Shops .....	..
New Buildings	609
Premises <i>re</i> Complaints	19
,, <i>re</i> Seavenging	9471
Slaughter-houses and Butchers' Shops	32
Stables .....	..
Works in progress :—Drains, Water-closets, &c.	435
Total	11,941



APPENDIX C.

SUMMARY OF NUISANCES DEALT WITH in the BIRTLEY SUB-DIVISION during 1913.

Townships—Birtley, Lamcsley, Ouston and Urpeth.

INSPECTOR BROWN.

NUISANCES.	Number of Informal Notices served.	Number of Statutory Notices served.	Number of Nuisances abated after Notice.
Animals or fowls improperly kept.....	2	..	2
Ash-closets, defective	38	..	47
Ashpits and privies, defective	27	..	15
Cesspools, overflowing	1	..	1
Cowsheds, foul conditions or defective	6	..	4
Dairies, defective .....	..	..	..
Dangerous buildings .....	..	..	..
Drainage, To provide drainage	1	3	5
,, ,, re-construct ,,	2	..	2
,, ,, repair or clear.....	93	1	92
Dwelling-houses, Foul conditions	2	..	1
,, Overcrowding	12	1	10
,, Structural defects	70	..	73
,, Water supply	13	..	5
,, Yard paving	6	..	29
Factories or Workshops	7	..	3
Fried fish-shops	2	..	..
Other nuisances	36	..	33
Refuse or manure	11	..	14
Schools, Structural defects .....	..	..	..
Scullery waste-pipes, defective	14	..	11
Slaughter-houses	3	..	2
Smoke (from outbuildings) .....	..	..	..
Water-closets, defective	6	..	5
Yard space curtailed by erection of wood sheds	3	..	3
Totals.....	355	5	357

APPENDIX B.

TABULAR STATEMENT OF INSPECTIONS, &c.,
made by MR. T. S. WADGE, Sanitary Inspector of the
Washington Sub-Division during the year 1913.

Townships—Barmston, Biddick South, Burnmoor, Lambton,
Lunley Little, Harraton, Usworth and Washington.

Bakchouses	7
Common Lodging-houses .....	..
Cowsheds	61
Dairies and Milk Shops	10
Domestic Workshops.....	4
Factories and Workshops	17
Fish and Fruit Shops	14
Houses <i>re</i> Infectious Diseases	12
„ <i>re</i> Nuisanees or Defects	1813
„ <i>re</i> Housing Record	118
Ice Cream Shops	3
New Buildings	945
Premises <i>re</i> Complaints	118
„ <i>re</i> Scavenging	10172
Slaughter-houses and Butchers' Shops	38
Stables	40
Works in progress :—Drains, Water-closets, &c.	562
Total	13934

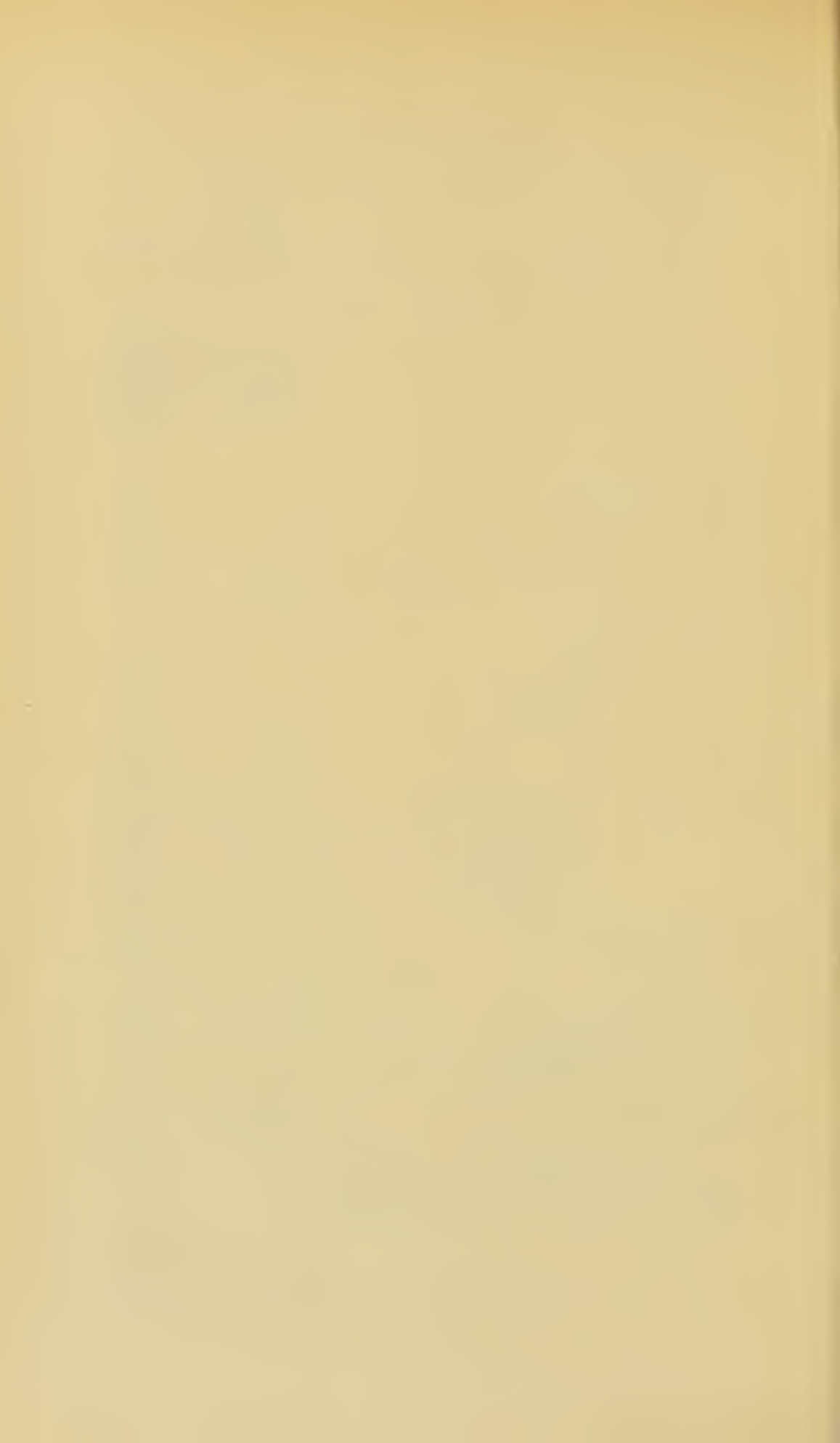
APPENDIX C.

SUMMARY OF NUISANCES DEALT WITH in the WASHINGTON SUB-DIVISION during 1913.

Townships—Barmston, Biddick South, Burnmoor, Lambton,
Lumley Little, Harraton, Usworth and Washington.

INSPECTOR WADGE.

NUISANCES.	Number of Informal Notices served.	Number of Statutory Notices served.	Number of Nuisances abated after Notice.
Animals or fowls improperly kept.....	9	..	9
Ash-closets, defective	221	101	186
Ashpits and privies, defective			
Cesspools, overflowing	2	..	2
Cowsheds, foul conditions or defective	3	..	3
Dairies, defective .....	..	..	..
Dangerous buildings .....	..	..	..
Drainage, To provide drainage .....	..	..	..
,, ,, re-construct ,, .....	..	..	..
,, ,, repair or clear.....	64	..	62
Dwelling-houses, Foul conditions	10	..	10
,, Overcrowding	20	1	13
,, Structural defects	218	..	221
,, Water supply .....	..	..	..
,, Yard paving	33	..	78
Factories or Workshops	2	..	7
Fried fish-shops .....	..	..	..
Other nuisances	18	..	16
Refuse or manure	22	..	22
Schools, Structural defects .....	..	..	..
Scullery waste-pipes, defective	35	..	35
Slaughter-houses .....	..	..	..
Smoke (from outbuildings) .....	..	..	..
Water-closets, defective or in foul condition	11	..	10
Yard space curtailed by erection of wood sheds	8	..	5
Totals.....	676	102	679

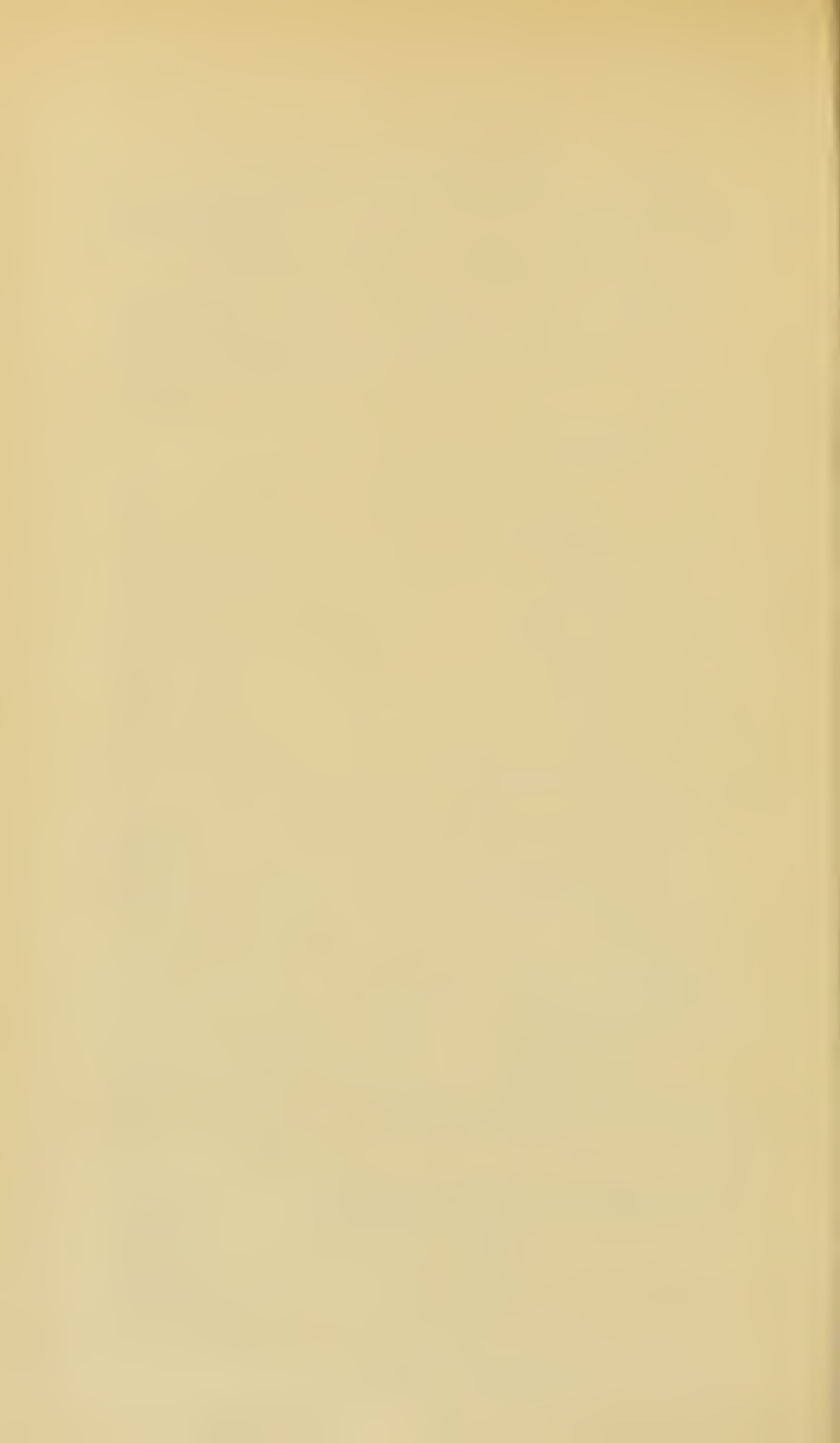


APPENDIX B.

TABULAR STATEMENT OF INSPECTIONS, &c.,
made by Mr. ROBT. J. SWADDLE, Sanitary Inspector of the
Witton Gilbert Sub-Division during the year 1913.

Townships—Cocken, Edmondsley, Lumley Great, Pelton,
Plawsworth, Waldrige and Witton Gilbert.

Bakehouses	19
Common Lodging-houses .....	..
Cowsheds	86
Dairies and Milkshops	33
Domestic Workshops.....	11
Factories and Workshops	44
Fish and Fruit Shops	8
Fried Fish Shops	29
Houses <i>re</i> Infectious Diseases .....	..
,, <i>re</i> Nuisances or Defects	1860
,, <i>re</i> Housing Record	127
Ice Cream Shops	4
New Buildings	962
Premises <i>re</i> Complaints	109
,, <i>re</i> Scavenging.....	9985
Slaughter-houses and Butchers' Shops.....	207
Stables	42
Works in progress :—Drains, Water-closets, &c.	2320
Total	15846



APPENDIX C.

SUMMARY OF NUISANCES DEALT WITH in the WITTON GILBERT SUB-DIVISION during 1913.

Townships—Cocken, Edmondsley, Lumley Great, Pelton,
Plawsworth, Walldridge and Witton Gilbert.

INSPECTOR SWADDLE.

NUISANCES.	Number of Informal Notices served.	Number of Statutory Notices served.	Number of Nuisances abated after Notice.
Animals or fowls improperly kept.....	8	3	8
Ash-closets, defective	49	3	71
Ashpits and privies, defective	126	2	121
Cesspools, overflowing	2	..	2
Cowsheds, foul conditions or defective	11	..	15
Dairies, defective .....	..	..	..
Dangerous buildings	2	..	1
Drainage, To provide drainage	13	2	17
,, ,, re-construct ,,	12	..	11
,, ,, repair or clear.....	94	..	92
Dwelling-houses, Foul conditions	4	1	4
,, Overcrowding	12	1	10
,, Structural defects	172	4	107
,, Water supply	3	..	12
,, Yard paving	108	2	78
Factories or Workshops	2	..	2
Fried fish-shops	2	..	2
Other nuisances	10	1	17
Refuse or manure	33	1	31
Schools, Structural defeets .....	..	..	..
Scullery waste-pipes, defective	4	..	1
Slaughter-houses	2	..	2
Smoke (from outbuildings)	1	..	2
Water-closets, defective	5	..	4
Yard space curtailed by erection of wood sheds .....	..	..	..
Totals.....	675	20	610

